Clinical Lecture
ON SOME
TUMOURS OF UNUSUAL SIZE.

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GENTLEMEN,—A few weeks ago you saw me remove a large fatty tumour, weighing nearly ten pounds, from a man's shoulder; and, as I have had under observation during the past year or two several other examples of tumours of more than ordinary dimensions, I take the opportunity of grouping some of these cases together, and of offering you a few practical remarks on their diagnosis and treatment.

Commencing, then, with the case of fatty tumour, there was little or no difficulty as to diagnosis. The dresser, Mr. C. J. Wilkinson, records that the patient was sixty-two years of age. He was sent to me by Mr. Pearse of Botesdale, and admitted on Jan. 1st, 1883. It appears that about thirty years ago the patient had another fatty tumour situated on the *left* side of his back, of sixteen years' growth. This was removed by operation, and six months afterwards he first noticed another swelling over the *right* scapula. As is not unusual in such tumours, the swelling increased in size steadily but surely up to two years ago, when it grew rapidly, giving him, however, no pain whatever, and causing no discomfort save from its bulky unwieldiness. The photograph I show you (Fig. 1) will recall to your recollection the

FIG. 1.

size and shape of the tumour. Observe that it hangs down, and is to some extent pedunculated; in point of fact, the circumference of the highest part measured twenty-six inches and a half, whilst lower down the greatest measurement at the circumference was thirty inches and a half. You will remember, too, that it was lobulated and soft and doughy to the touch, that it could be moved in a circle in all directions, and also that the skin, which was tightly stretched over the tumour, was very thin, and here and there adherent to the growth beneath. Again, you may have noticed that the man was hale and hearty, and had a perfectly healthy aspect of countenance, and there were no enlarged lymphatic glands in the neighbourhood of the swelling. I removed the tumour on Jan. 10th, 1883, by a single incision from above downwards, directing it so as to leave ample room for drainage at the most dependent spot. I divided a few adhesions with the knife, in order to obviate using undue force in enucleating the growth. Some fatty tumours, as you perhaps know, may be squeezed out after the incision in the skin is made, but I am of opinion that if the growth does not readily separate from its capsule, it is better to touch the adhesions lightly with the knife, rather than run the risk of bruising the parts by dragging upon the tumour too forcibly. The wound was dressed immediately after the operation by the Listerian method, but this mode of dressing was abandoned after nine days in consequence of the supervention of suppuration. In this case I removed a small piece of redundant integument, but I believe that this procedure is rarely necessary, because the skin, as a rule, contracts with remarkable rapidity. I am, however, quite certain that in some situations—as, for example, in removing an enlarged breast for a tumour of an innocent character—it is not only unnecessary to remove skin, but it is positively advantageous to retain every bit that is possible, and I know of cases in which the removal of apparently redundant integument in this situation has resulted in a permanent and painful cicatrix. So that if there is a part of the body in which the skin may be left with advantage it is in the examples of simple hypertrophy or chronic mammary tumours of the breast; for, after the wound has healed the cicatrised tissue forms a pad which gives a quasi-natural plumpness to the bust. In illustration of this point I here show you two photographs taken before and after operation of a cystic adenoma which was nearly the size of an adult head. In this case I left all the highly stretched skin excepting a piece the size of a sixpence, which was ulcerated, and you will notice that in the photograph taken two months after the operation the puckered integument forms a fair elevation which is really nearly as prominent as the remaining mammary gland. Of course you will understand that these remarks apply to the benign and not to the malignant forms of tumours, in which latter the skin is not unfrequently more or less implicated. Again, in other instances the removal of skin depends to some extent on the width of the pedicle; for example, the other day you saw me remove a large fibro-fatty growth from the upper and inner part of the thigh of a woman aged seventy-five. In this case I transfixed and divided the narrow pedicle, which measured only one inch and a half, straight across by two cuts of the knife from within outwards, thus removing the tumour with almost the whole of its cutaneous covering. The tumour measured eleven inches round its large circumference and twelve inches and a half in the vertical direction, and yet there was abundant integument to close the wound. Fatty tumours, as you are aware, are frequently situated on the back at the shoulder, but they may be found in any part of the body. They are, however, very rarely met with on the face; and there is a case recorded by M. Danez, in which at a post-mortem of a man no less than 215 fatty growths were found in different parts of the body, and the only situation that was quite free from such tumours was the face.[1]

Now, let us pass on to the next case of enchondroma involving the greater portion of the left humerus. I find from the notes taken by my dresser, Mr. J. L. W. Kitching, that the patient was a man aged fifty-three, a labourer, sent to me by Mr. J. W. George of Malvern Link, and admitted on January 9th, 1882. Nine years before admission he noticed a hard lump, the size of a pigeon's egg, in the region of the left deltoid. As in the previous case, we find that the tumour increased in size very slowly until three years ago, when it grew rapidly, and also that it never gave him the least pain. Indeed he continued to work—laborious work too—up to nine weeks before admission, when he sought advice. The photograph I show you (Fig. 2) gives a good idea of the growth. There was a large irregular tumour in the upper arm, extending upwards to the acromion, and backwards beyond that process to the dorsum of the scapula for three inches, and it extended downwards to the tip of the olecranon. The growth measured transversely in circumference twenty-four inches, and from above downwards sixteen inches. It projected inwards towards the trunk, so that the arm was kept abducted for about four inches. The skin was very tightly stretched, but freely movable all over the tumour. Through this delicate cutaneous covering might be observed the characteristic nodulated appearance of enchondromatous tumours, and the finger passing over the growth at once detected these elevations, of variable size. The brachial artery could be seen and felt beating on the inner side of the arm.

[1] Surgery of the Face, THE LANCET, Jan. 19th, 1878, p. 77.

There was some numbness on the dorsum of the thumb and the neighbouring two fingers and a half, indicating pressure on the musculo-spiral nerve. The tumour was quite solid, involved the humerus only, and followed its movements in every direction, and the movement of the shoulder-joint was unimpaired. There were no enlarged lymphatic glands, and the man enjoyed excellent health.

On January 19th, 1882, I removed the arm at the shoulder-joint. A large oval flap of skin (for nothing else apparently remained, the muscles being attenuated to the last degree), about six inches in length, was taken from the outer side, and another flap about a third of that length on the inner side. The skin on the outer side having been well reflected up above the tumour, the limb was forcibly adducted over the chest and the shoulder-joint opened from behind. The large vessels were included in the final cut. There was but slight hæmorrhage, and the wound was dressed after the operation on the Listerian system. The man made an excellent recovery, and left the hospital five weeks after operation. The tumour which I show you is from our museum, and weighs, including what remains of the humerus, about eleven pounds. It presents the very characteristic appearance of enchondroma. Observe its pearly and shining character; the greater portion appears to be but one tumour; but on closer inspection there may be seen smaller growths, apparently held together by fibrous tissue. From its general appearance there can be little doubt that it originated in the medulla of the bone. As in the first case (of fatty tumour), this is innocent in character, and my only regret is that there was no other course open but to perform amputation at the shoulder-joint in order to rid him of his cumbersome and unsightly parasite.

FIG. 2.

In connexion with this case it may be interesting, by way of contrast, to refer to another instance of amputation at the shoulder-joint, but in which the operation was undertaken for a malignant tumour at the upper part of the humerus. The patient was a man, aged fifty-eight, and was admitted under my care on March 13th, 1879. The case was one of soft round-celled sarcoma, and was strikingly characteristic of that disease. The man was a waiter by occupation, and had enjoyed good health until seven weeks (and please note the rapidity of growth in comparison with the former case) before admission, when he noticed a swelling about the size of a walnut opposite the insertion of the right deltoid muscle. This gradually enlarged, but gave him no pain, and he continued his occupation as usual up to Feb. 26th, when, on stretching over a dining table to lift a dish containing a large turkey, he felt and distinctly heard a sharp snap in his arm. The limb was immediately powerless. As might be supposed, the patient himself regarded the arm as simply fractured, but the house-surgeon, Mr. Takaki, at once recognised the complication, and formed an accurate diagnosis of the case. On examination there was a swelling about the size of a fœtal head situated at the upper third of the humerus. It was moderately firm and somewhat elastic to the touch, and had increased in size very rapidly during the previous three weeks. There was considerable numbness of the arm, forearm, and hand, but no enlargement of the cervical or axillary glands. It is unnecessary to occupy your time with further details, but I may say that I removed the limb at the shoulder-joint on March 19th, 1879. There was some difficulty in getting flaps, inasmuch as the tumour encroached so high in the axilla. The dressings were of dry lint, no antiseptic spray being employed. The patient made fair progress for a time, but on April 8th we noticed an elastic swelling in the region of the acromion, and on introducing a grooved needle to ascertain the nature of the contents it was quite evident, from microscopical examination, that there was local recurrence of the growth. From this time he lost ground, and ultimately died on May 16th, about three months from the commencement of his fatal illness, and about two months after the amputation. At the post-mortem examination the lungs, pericardium, liver, spleen, and kidneys were studded with secondary deposits, soft and friable in texture.

The next case, like the last is one of sarcoma, but differing in degree only, which was sent to me by Dr. Colomiati Meredyth in 1877. The photograph I show you (Fig. 3) enables you, to some extent, to make your diagnosis between it and those represented in Figs. 1 and 2. Mark the flabby softness in the fatty tumour. Observe the solid and unyielding hardness in the case of enchondroma, and note in this case the peculiar semi-solid growth standing out, and having a broad attachment to the trunk, covered by a thin purplish skin, in which may be observed the superficial veins meandering. I think it scarcely possible to find three better or more typical examples of these forms of tumours. The patient represented in Fig. 3 was a man, aged forty-six, who in 1863 noticed a little lump at the lower end of the left scapula, which remained about the same size until 1874, when it was the size of a walnut. In 1876 it had grown to the size of a fœtal head, and had increased rapidly to its present dimensions until the time I saw him in September, 1877. The tumour then measured twenty-two inches from side to side, and twenty inches in the vertical direction. The shoulder-joint was free and not involved, and the tumour appeared limited to the back of the scapula, to which it was immovably attached. The patient was thin but thought he had not lost much flesh, though it was quite clear from his appearance that the disease was rapidly undermining his constitution. I removed the tumour in October, 1877, at the patient's house, and went prepared to take away the whole of the scapula with it, but on reflecting the skin by a crucial incision I was enabled to dissect away the tumour without having recourse to the more serious measure that I had contemplated. The further history of the case may be briefly told. The man made good progress for about a week, when he died from acute pneumonia. The case is interesting partly on account

FIG. 3.

of the size of the tumour, but perhaps more especially because it affords, as the last case did, a good example of the usual history of sarcomatous tumours, in that there were no enlarged lymphatics, and that at the post-mortem abundant secondary deposits were found in the lungs and other organs. I need scarcely remind you that the implication of the lymphatics is characteristic of the carcinomata, whereas in the sarcomata it is generally believed that the disease is carried into the general system directly through the blood. With regard to this case, I am inclined to think it not improbable that if an operation had been performed soon after the first appearance of the small growths in the year 1863 a perfect cure might possibly have been effected, for the tumour seems to have taken on its intensely malignant action during its last year. Probably it was originally a myeloid tumour or a small spindle-celled growth. Its slow development forms a fitting contrast to the previous case I described of soft round-celled sarcoma, which attained its highest condition of malignity in the short period of seven weeks.

In conclusion, I wish to direct your attention to a case of enormous hydrocele, of which I show you a photograph. The patient was sent to me by Dr. Price, of Margate, and was admitted in November, 1880. You may form some idea of the size of the tumour when I tell you that its horizontal measurement was thirty-one inches, and the vertical one twenty-six inches. The dresser, Mr. E. C. Green, reports that the patient had suffered from a swelling in the scrotal region for fifteen years. It had been tapped twice previously to admission, once eleven years ago, and again seven years back. When I tapped it on Nov. 24th, 1880, one gallon and a half of clear fluid was evacuated. The scrotum, however, rapidly refilled, and as the patient was desirous of having a radical cure attempted, I operated under the antiseptic spray, and removed the thickened cyst on Dec. 8th, 1880. The patient, who was by no means a good subject for operation, went on well for about ten days, when, I regret to say, he was attacked with pneumonia, and succumbed after two days' illness. No post-mortem was allowed in this case.

Lecture
ON THE
DIAGNOSTIC USES OF ELECTRICITY IN DISEASES OF THE NEURO-MOTOR APPARATUS.

Delivered at St. Mary's Hospital,

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(*Concluded from page 6.*)

THERE is every reason to believe that the changes before mentioned observed in warm-blooded animals occur also in man under similar circumstances, and in idiopathic diseases of the trophic centres and of the nerve trunks. This probability is based upon the results of human morbid anatomy, and upon the fact that the course of the alterations in the electro-excitability both in man and in animals is essentially the same. The merit of having shown the dependence of the several phases of degenerative reaction upon the definite phases of histological changes just described belongs to Erb, who has embodied and summarised the facts in the annexed diagram. The time over which the phenomena spread themselves is indicated by the numbered ordinates (1, 2, &c., which denote weeks). The first ordinate (0) indicates the starting-point of the disease when very acute, or the moment of nerve section or injury. The dotted horizontal line indicates the voluntary power, which is suddenly lost at 0, and reappears at a sooner or later stage in cases of recovery (* in diagram). The galvano- and farado-muscular excitability[2] are denoted by two separate lines; the electro-nervous excitability by a third. The rise and fall of the several curves show the quantitative rise and fall of the reactions they represent. The wavy part of the galvano-muscular curve shows the period of qualitative alterations in the contractions. At the top of the diagram are indicated the approximate periods occupied by the various histological changes through which nerve and muscle pass during the process of degeneration and regeneration. During the first two weeks degeneration of the nerve occurs, and as a consequence its excitability vanishes. The disappearance of farado-muscular contractility denotes the degeneration of the intra-muscular nerve elements. The first symptom of regeneration is the apparition of motility; close upon its heels usually follow the first signs of restored electro-nervous and farado-muscular excitability. The degenerative process of muscular fibre is accompanied with a quantitative (increase) and qualitative modification of its galvano-reactions. Cirrhosis coincides with a fall of the exalted excitability. The return of the normal mode and series of contractions is very gradual. This diagram is intended to represent a typical case of R.D., and as such will rarely be found to tally in all their details with the exact course of events in an actual case. The conditions under which they are best realised are those in which the trophic centres or paths are suddenly destroyed (traumatic lesions, facial paralysis, &c.) When a more gradual morbid process is at the root of the electrical changes, the intermixture of effects due to the simultaneous excitation of fibres, some of which are healthy, others more or less altered in their structure, masks or distorts the degenerative reactions. Generally speaking, the rate of progress and depth of the lesion, as well as probably numerous other causes still hidden from us, tend to modify the phenomena in various ways. Frequently enough the picture of R.D. presented to us is but fragmentary or even fallacious; much experience and skill in conducting the experiments can alone enable the observer to recognise the unity of type between such instances and those schematised in the diagram. It would be beyond the scope of an elementary lecture to go into minute details concerning the numerous departures from the typical course of events just described. The beginner would only be confused thereby,

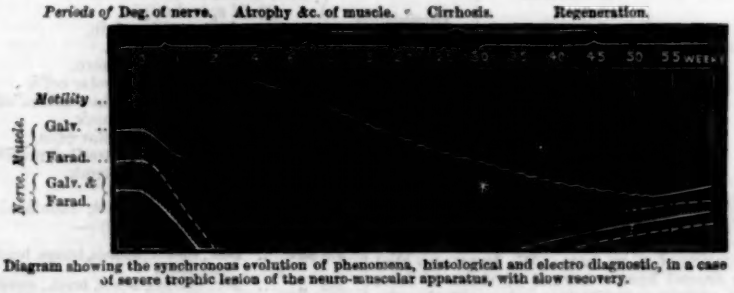

Diagram showing the synchronous evolution of phenomena, histological and electro diagnostic, in a case of severe trophic lesion of the neuro-muscular apparatus, with slow recovery.

[1] The first part of this lecture accidentally appeared unrevised. Many points touched upon presuppose a knowledge of the electro-physiology of human nerve and muscle, for which I am compelled to refer the reader to the second edition of my "Practical Introduction to Medical Electricity," now in the course of publication.

[2] We have already mentioned that muscular substance, even when healthy, does not react to stimuli of very short duration, such as faradaic shocks. Hence there is, absolutely speaking, no such thing as farado-muscular excitability. The term is a convenient one, however, and we use it to mean the indirect excitability of muscles to faradisation applied to the nerve endings and filaments they contain, as distinguished from excitability to faradisation applied to their motor nerve (farado-nervous excitability).

instead of stimulated in his endeavours to familiarise himself with the fundamental facts of electro-diagnosis. It is the chronological distribution and the relative intensity of the several factors which by their combination form "the reaction of degeneration," which vary most considerably according to the acuteness and general anatomical and clinical characters of the lesion giving rise to them. The *presence of qualitative alterations* of the muscular reactions is then the main point to be attended to; for by itself it is sufficient to demonstrate the existence of the arrest or impairment of the trophic influence of the cord on the nerves and muscles. There is one variety of R.D. which requires special mention here, however, because it throws some light upon this "trophic" function, and is of prognostic importance. Erb has shown that in some cases the muscles alone display the typical quantitative and qualitative modifications of galvano-reaction just described, whilst their farado-excitability is preserved and the nerve continues to respond normally or subnormally to both currents. The diagram I show you embodies these facts in their chronological order, and in their relations to the histological changes upon which they depend. In this *partial* R.D. the nerve apparently remains intact, whilst the muscles go rapidly through a process of degeneration and regeneration. This is found in many cases of facial paralysis, where probably the pressure upon, or morbid process in, the nerve-fibres is not sufficient to impair their vitality, though sufficient to arrest their function—viz., the conduction to the muscle of trophic and motor influence. It is in certain cases of partial R.D. that we find the modal alterations in the muscular response to nerve-excitation (viz., a sluggish, protracted contraction to single stimuli, galvanic or faradaic) previously mentioned. The fact of partial R.D. occurring also in certain diseases affecting the multipolar ganglionic cells compels us to assume a distinction between the neuro- and the myo-trophic agencies. Whether this distinction depends upon special mechanisms or not, is as yet impossible to say. In the following table, which embodies the facts we have been hitherto discussing, I use the term "trophic centres" as an abbreviation only.

Reactions found to be:

- *A.* Normal.
  - (1) Healthy (Shamming).
  - (2) Functional } disturbance of:
  - (3) Organic } disturbance of:
    - Cortex.
    - Corpus striatum.
    - Pons, peduncles.
    - Lateral columns.
    - Peripheral nerves (very slight disease).
    - Muscles.
- *B.* Abnormal.
  - Quantitative alterations.
    - Augmented.
      - Irritative process in: Brain. Lateral column. Cornua.
      - Hyperexcitability of: Nerve-muscle.
    - Diminished.
      - Alterations in nerve-muscle:
        - (1) Of spinal origin.
        - (2) Of idiopathic origin.
        - (3) Post-regenerative.
  - Quantitative and Qualitative.
    - Complete R.D.
      - Destruction of anterior horn.
      - Disease of: (*a*) Multipolar cells. (*b*) "Trophic centres" of nerve-muscle.
      - Severe lesion of nerve-trunk.
    - Partial R.D.
      - Slight disease of multipolar cells.
      - Disease of "trophic centres" of muscle.
      - Slight disease of nerve-trunk.

We are now in possession of the facts revealed by the electrical investigation of the nerves and muscles in a number of morbid conditions, and we have learnt the principles of interpretation of these facts. We know also that normal reactions depend upon a normal nutrition of those tissues, and that certain quantitative and qualitative departures from the standard correspond to certain histological processes set up when the trophic influence of the cord is in abeyance. We have insisted on the fundamental principle that there is absolutely no correspondence between the nature and amount of reaction and the degree of motor disturbance. Muscles and nerves which are hopelessly paralysed may continue for years to yield perfectly normal responses to either current, whilst reactions indicative of degenerative processes are consistent with a considerable amount of motor power. The following remarks are intended to define still more clearly the scope and limits of electro-diagnosis. The electrical exploration of muscles and nerves does not give us any direct information as to the nature of the lesion producing the motor or trophic symptoms. The latter may be inflammatory, or traumatic, or toxic. The determination of this point rests upon the history and general clinical aspects of the case, and the teachings of morbid anatomy in parallel instances. With reference to the localisation of the process, however, much light may be thrown upon the problem, especially when R.D. is present. The latter allows us to conclude at once to a disease of the anterior cornua, or of the peripheral nerves; and a more exact investigation of the distribution of the degenerative changes among the muscles enables us to localise still more precisely the seat and extent of the morbid process.

When the trunk of a nerve is diseased the degeneration processes extend, and are limited to all the muscles supplied by that nerve. When, on the other hand, the lesion affects the anterior cornua of the cord, these processes are distributed among groups of muscles having a physiological, and not merely an anatomical, connexion. The reason of this fact is that the ganglionic motor cells are arranged in groups governing the simpler coördinated movements. Hence, degenerative changes will be distributed among muscles, according to the seat and extent of the cornual lesion, and conversely the localisation of the peripheral changes gives us a clue to the position of the mischief in the cord. Such a localisation is often impossible without the assistance of a careful electrical diagnosis; as, for instance, when the disease is of slow growth, and obvious atrophy and paralysis are not present. Every spinal motor root arises from a spinal segment containing circumscribed aggregation of ganglionic cells, which experimental physiology shows to govern the coördinated action of a certain number of muscles. Thus by faradisation of the several cervical, lumbar, and sacral roots in the monkey Ferrier showed that in each case a certain definite movement of the arm or leg ensued. By analysing these movements he was able to define which muscles were thrown into activity in each case, and by reasoning one step further to determine the spinal motor centres of those muscles. His results confirmed in the main the views propounded by Remak and Erb on the grounds of clinical observation, and may be, provisionally, at least, tabulated as follows (see "Brain," vol. iv., 1881, p. 226):—

4th cerv.	..	Delt., rhomb., spinati, biceps, brach. ant., sup. long., ext. hand.
5th ,,	..	Delt. (clavic.), biceps, brach., serratus m., sup. long., ext. hand.
6th ,,	..	Latis. dors., pect. m., serr. m., pronators, triceps.
7th ,,	..	Teres m., lat. dors., subsc., pect. m., flex. hand, triceps.
8th ,,	..	Flexors, wrist and fingers, muscles of hand., ext. wrist and fingers, triceps.
1st dors.	..	Muscles of hand (thenar, hypothenar, interossei).
3rd lumb.	..	Ilio-psoas, sart., adductors, extensor cruris.
4th ,,	..	Ext. fem. et cruris, peron. long., adductors.
5th ,,	..	Flex. and ext. toes, tibial, sural, and peroneal muscles, ext. rot. thigh, hamstrings.
1st sacral	..	Calf, hamstrings, long flexor big toe, intrinsic muscles of foot.
2nd ,,	..	Extrinsic muscles of foot.

You see thus how from the occurrence of R.D. in certain groups of physiologically correlated muscles we can infer the

portion of the cord which is the seat of the morbid process upon which the peripheral condition depends.

It is obvious from the fact that qualitative departures from the normal polar formula depend upon histological changes in the nerves and muscles, that electro-diagnosis gives us a clue to the depth of the lesion, and its rate of progress; hence it becomes in some cases a valuable means of framing a prognosis. Erb has shown how in cases of facial paralysis the duration of the process of degeneration and regeneration could be accurately determined by the behaviour of the electrical reactions; we reserve this point for a fuller discussion hereafter. Generally speaking, the prognosis becomes gloomy in proportion to the persistence of the R.D. beyond the usual period of regeneration (see diagram), and it may not be unnecessary to guard the student against the error of looking upon the occurrence of alterations in the response of nerves and muscles as in itself indicative of irreparable mischief. On the contrary, R.D. is often of far more favourable prognosis than normal reactions, which we have previously found to be consistent with absolutely incurable lesions, involving complete paralysis. Intractable spasms, tremors, or convulsions, again, are never accompanied by any notable disturbance, quantitative nor qualitative, of the electrical reactions.

ON RUPTURE OF THE BLADDER.

WITH NOTES OF TWO CASES.

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(Concluded from p. 10.)

THIS second case occurred in the person of a little relative of my colleague, Dr. Edis, and in the practice of Dr. Sturges of Beckenham. To their kindness I am indebted for the privilege of publishing it, and to Dr. Edis my thanks are due for his very full notes of the case made from day to day from written bulletins or personal observations. No one who will read these notes carefully can, I think, doubt that the bladder in this case was ruptured, though opinions may differ as to the exact situation of the rent. Some may incline to think the extravasation was beneath the peritoneum; others may lean to the view that it was into the cavity of the peritoneum, and that the pus passed per rectum came from a pouch behind the bladder, shut off from the rest of the serous cavity by inflammatory adhesions. The evil consequences of retaining the urine for any length of time in the bladder were seen on the eighth day after the injury. For the first time he slept calmly on the night of the 15th of September, and did not pass urine throughout the night; but afterwards the urine, which for four or five days had been clear (rendered turbid with blood, however, on the seventh day by the frequent action of the bowels on the day before), became offensive and loaded with blood, and the general symptoms were aggravated.

CASE 2. *Rupture of the Bladder; Recovery.* — Harold F. G——, aged eight, on Friday, Sept. 8th, 1882, at 1 P.M., fell from a tree ten feet high, striking his left side against a branch, and then falling upon his abdomen against a stump on the ground. This occurred in the Crystal Palace grounds, where he had been playing with his sister and brothers. Immediately he was sick and faint, and in a collapsed state was driven home to Beckenham in a recumbent posture. Dr. Montague Sturges of Beckenham was sent for, and found him still collapsed, with a fluttering pulse, and that he had vomited several times. No urine had been passed between breakfast and the time of the accident—i.e., about five hours,—and none afterwards until between nine and ten o'clock in the evening, when within the space of an hour he voided nearly half a pint of a very high-coloured mixture of blood and urine. Between eight and nine o'clock, on attempting to micturate, he had passed half a teaspoonful of blood with much pain, and then the flow stopped; but he had frequent desire to micturate, and during the night the pain in the abdomen was relieved by doing so. He passed a sleepless and very restless night, being in continual pain. He took a little ice and milk.

Sept. 9th: Pain over hypogastrium and backache. There is a bruise on the abdominal wall one inch above the level of the tip of the twelfth rib to the right of the umbilicus; abdomen distended, very tender, and in constant pain; vomiting continued all day; passed urine at frequent intervals throughout the day; urine loaded with blood.—10th: Very restless; frequent desire to micturate; pain in abdomen only relieved by being allowed to do so; looks ashen and cadaveric; extremities cold; urine still loaded with blood.—11th: Very restless night; could not lie on his side, but lay on his back with his knees drawn up; urine continued bloody until the evening, when it was clear for the first time; peritonitis; temperature 103°; pulse 120.—12th: Very restless; less frequent desire to micturate; constant pain in the back, but less in the abdomen. 4 P.M.: Urine clear; temperature 102·3°; pulse 120. A four-ounce enema of olive oil was administered; it was retained all night.—13th: Bowels opened at 7.30 A.M., and again during the day; urine clear. Some medicine containing rhubarb was given; bowels opened two or three times after; stools not loose. — 14th: Urine turbid, and beginning to get bloody again. 4 P.M.: Temperature 100°; pulse 108; bowels opened six or seven times. In the evening the urine was clear.—15th: Urine bloody and very thick. — 16th: Slept very calmly, and did not pass urine throughout the night, but at 6 A.M. voided nearly a pint, which smelt very badly.—17th, midday: The urine was loaded with blood, and of a dark-chocolate colour. Pulse 96; temperature 98·3°; tongue coated and moist. With the view of preventing the accumulation of urine within the bladder, which had occurred the day before, and which by tension might tear open the wounded part, a No. 5 catheter was introduced this afternoon, and to it a long elastic tube was attached. Urine on straining passed by the side of, as well as through, the catheter.—18th: The urine continued turbid till midday; then there came a quick gush of clear urine; afterwards it was brighter, but still tinged with blood. 4 P.M.: Pulse 102; temperature 99°; tongue moist and pasty; bowels not open; catheter *in situ*. The quantity of urine and blood run off equals about half a pint in the six hours.—19th, 4.30 P.M.: A very copious motion was passed after much pain and crying. The urine after the action of the bowels was very dark from the amount of blood in it. The catheter was withdrawn, and a No. 6 introduced, when a rush of very dark-coloured urine was ejected by the side of as well as through it, as dark as when the bowels had acted two hours before.—20th: The catheter came out last evening, and was not reintroduced, as he cried and struggled against it. The urine passed during the night was dark; this morning it is clear.—21st: The urine was again bloody during the night. At 7.30 A.M. an iced water enema was given, with a view of checking the bleeding from the bladder. During the day the patient had rigors, felt feverish, was very pale, and vomited several times. Pulse 144; temperature 104°. Examined by the finger in the rectum, there was no fulness, tenderness, nor heat detected. Ordered quinine and port wine.—22nd: The patient was seen by Mr. Henry Morris. The face was pale, pinched, and anxious. Pulse 120; temperature 101·2°; tongue furred; very restless; had rigors in the morning. The patient was lying with knees drawn up, and on his back; he complained of pain in the abdomen, which was tense and somewhat distended. The urine was quite clear. On examination per rectum Mr. Morris thought he detected an unnatural fulness high up in the pelvis on the right side. Patient was to be made to pass water every two hours, to take as little fluid as possible, and to be kept slightly under the influence of opium. Poultices were applied to the abdomen. —24th: The urine was clear, and the tongue coated. The patient was in constant pain. Pulse 120; temperature 101·2°. 3 P.M.: Pulse 132; temperature 102°. The patient was crying out in pain. Ordered two drachms of solution of acetate of morphia to three ounces of water, one drachm to be taken every four hours. 8 P.M.: Temperature 104·2°. The patient took nourishment (milk and thick beef-tea) well throughout the day.—25th: Morning temperature 101·3°; evening temperature 101°. The bowels opened naturally. The patient had a quiet night, with sleep at intervals, but looked ghastly ill all night. He had the bed-pan two or three times, owing to bearing down sensation, but passed nothing. He is kept under the influence of morphia, and is not over-sensitive to touch in any part of the abdomen. An average quantity of urine was passed.—28th: The temperature and pulse have ranged high since the last note. The bowels have acted on alternate days, attended with much moaning and pain. The face was very pallid, and the tongue furred. Pulse 120; temperature 101·3°. Patient lying with

knees drawn up; there is brawny redness about the right crista ilii.

Oct. 1st: No fluctuation detected anywhere, iliac region less discoloured, temperature still over 101°.—3rd: Abdomen distended; slightly tympanitic on the right side, though there is still a dusky red look in the skin about the anterior superior iliac spine. Great restlessness; inability to sit up. When not on his back always lies on the left side, and to-day he is complaining of pain in the left axillary region. The superficial veins of the left side of the trunk are enlarged. Temperature still keeps about 101°, yesterday it was 102°, to-day 101·6°.—4th: Abdomen more distended but less tender; redness of skin disappeared; breathing healthily.—5th: Sweating freely; left side of abdomen dull and distended; pulse feeble; cannot yet attempt to sit upright.—8th: Sat him up to examine chest; lung and heart sounds normal; left side of abdomen still distended and to-day very painful. Something broke internally in the evening and he passed a horribly offensive motion, quite unlike a child's stool but more like liquid putty. The child remarked "it came away all cold;" he was much easier afterwards. Slept fairly well during the evening; took but little food and felt sick after taking anything.—10th: Temperature yesterday and to-day normal or subnormal; pulse 104; urine normal; bowels fairly relieved; still complains of pain at the side but he seems better and "as if he was about to turn the corner."—13th: A very copious offensive motion, very slimy like thick butter and adherent to the slipper, was passed to-day; temperature has again risen above 100°; this morning it was subnormal, 97·5°; abdomen now resonant on left side and not tender. From this time he made steady progress; on Oct. 19th he was moved on to the couch and could sit up. On Oct. 27th he was eating well, and sleeping without his anodyne; his bowels were acting regularly, his temperature kept normal, and he could sit up alone. For the first two days in November the temperature rose to 100° and a little higher; he still looked very pale and ill, but he progressed slowly; had been up and dressed two or three times and could walk a little way but not uprightly. The convalescence was slow, but he had quite recovered by the beginning of the present year.

Mansfield-street, W.

ON TWO CASES OF TOBACCO AMBLYOPIA.

By THOMAS BUZZARD, M.D. LOND., F.R.C.P.,
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FOUR years ago, A. B——, a gentleman, aged thirty-two, who had previously suffered from nervous symptoms associated with uric acid dyspepsia, complained that at a certain distance he could not see people's eyes, and that in reading he now and then lost sight of some of the characters. He came under the care of Mr. Brudenell Carter and myself. The patient was slightly myopic, and his unaided distant vision amounted to only eight-fiftieths of the normal; but was raised by a concave glass of one dioptre to eight-thirtieths. He had been feeling depressed and wanting in energy for some months. By the ophthalmoscope his discs appeared pale; but he is a dark-complexioned man, and it was doubtful how far the pallor might be apparent only, and due to contrast with the darkness of the fundus. His organs generally were healthy; the urine contained no albumen or sugar, but abounded in urates. He had never had syphilis. The pupils contracted to light. On inquiry he complained of having suffered from sudden darts of pain in his arms and legs during the past winter. These pains sometimes lasted as long as a week, and then did not trouble him again for a month or so. His description fairly corresponded with that of the shooting pains of tabes of less than usual severity. The patellar-tendon reflex was found to be normal at each knee. In spite of this, his symptoms were so suggestive of incipient optic nerve atrophy of sclerosal character as to give rise to grave anxiety. His habit was to take about a pint of claret and three or four ounces of whisky in the twenty-four hours, and to smoke six or seven pipes of tobacco daily. His tobacco was cut down to one pipe a day, his alcoholic stimulant was reduced by half, and some strychnia was ordered. In one month the unaided distant vision had increased to eight-thirtieths, and was raised to eight-twenty-fifths by the same concave glass formerly used. In the hand, by the aid of a convex of one dioptre, the best he could do was to read 0·6 of Snellen's test types. The treatment was continued, and by the end of three months the distant (aided) vision of the left eye had increased to eight-sixteenths, while that of the left remained at eight-twenty-fifths; but Snellen's 0·5 could be read with either eye without the aid of a convex glass. The pallor of the optic discs was less conspicuous. The improvement has been maintained, and at the present time his sight is reported to be perfect.

In May, 1882, C. D——, a gentleman aged thirty-one, was attended by Mr. Carter and myself in consultation on account of amblyopia, which he had first noticed in the preceding March. The patient was a man of very active habits, leading a country life, but had been a somewhat free liver. He had never suffered from syphilis. The distant vision was eight-fortieths with either eye, and No. 3 of Jaeger's types could be read with difficulty by the aid of a convex one-fiftieth lens. The tension and colour-sense were normal, and at that time there were no very manifest disc changes. The tongue was foul and loaded, but the organs generally were healthy, and the urine was free from albumen and from sugar. He was put upon iodide of potassium, with blue pill and compound rhubarb pill every night, and in a fortnight his condition had improved. The tongue was clean. He read No. 3 of Jaeger unaided, and the distant vision had increased to eight-thirtieths. The iodide was continued, and the pill given twice a week. In another fortnight there was a still further advance, the distant vision being eight-twentieths, and No. 2 of Jaeger being read without assistance. At this point he remained stationary for a time, and then fell back, while at the same time the discs became pallid, and the sight of the left eye failed rapidly. He owned to some "rheumatic" pains at times, but at first said that he had never experienced any of a sharp and momentary character. Later he described having had a few attacks of this kind. The knee phenomenon was present on each side; but in August it was supposed (erroneously, I think) to be diminished, and at that time a very gloomy prognosis was entertained. We expected the knee phenomenon to disappear, and regarded the case as being probably one of tabes in which the optic nerve symptoms were dominant. Various treatment had been adopted without success, and for two months from August he took strychnia to the full production of physiological effects. At the end of this time the sight of the right eye remained much as it was when its acuteness was deliberately measured; but it had lost a little even in this respect, and decidedly in quickness of perception, while the left eye had lost in acuteness to the extent of being practically useless, and its disc was much more pallid than formerly. Careful examination showed the knee phenomenon to be normal on each side. The patient had been advised in May to diminish his tobacco; but the advice had not been strongly pressed, and in October his acknowledged habit was to smoke ten or twelve times a day, pipes or cigars, but mostly the former, and to drink eight or ten glasses of beer, with a few glasses of wine, daily, and a couple of "grogs" at night. At this time, being then quite unable to read, he yielded to the advice given him, and left off smoking and "grogs," but continued to take eight glasses of beer and two of sherry daily. Arsenic and quinine were prescribed for him. At the end of three months he could read *The Times* comfortably, and had read a couple of books, but his optic discs continued very pale. Four months later he wrote: "You will be glad to hear that my sight since I last saw you has improved immensely. If not quite as good as ever it was, it is nearly so. I have, as instructed by you, left off smoking, except perhaps a cigar a month. I have also decreased the amount of alcohol; but I place the smoking as the principal cause. Although at one time I could not read the clearest type, I now read any book or newspaper apparently as well as ever I could."

These cases, and especially the second one, are calculated to support the view that changes in the appearance of the optic disc, closely resembling those dependent upon the atrophy so often associated with tabes dorsalis (locomotor ataxy), may have their origin in the excessive use of tobacco, excess being possibly measurable by the idiosyncrasy of the patient, rather than by the actual quantity consumed. In both instances, but most markedly in the first, the sudden pains which were described inclined us towards a diagnosis of sclerosal atrophy, and it was chiefly the continued presence of the patellar-tendon reflex which prevented the too confident expression of an unfavourable prognosis. In a case

of optic nerve atrophy already published[1] no symptom of tabes has been associated with the intra-ocular change except that the knee phenomenon disappeared in succession from each leg while the patient was under observation. He is now irreparably blind.

Grosvenor-street, W.

A CASE OF GASTROSTOMY, FATAL ON THE TWENTY-THIRD DAY FROM ACUTE PARENCHYMATOUS GASTRITIS.

BY HERBERT W. PAGE, M.A., M.C. CANTAB.,
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THE operation of gastrostomy was undertaken in this case, in circumstances apparently most favourable, on account of impassable organic obstruction at the lower end of the œsophagus; and although the condition of the patient immediately and for three weeks after the operation gave every promise of success, death then took place from a sudden and acute attack of purulent inflammation of the walls of the stomach. The case is therefore a most important one, for apart altogether from the rarity of this form of gastritis, I am not aware of any instance in which a like unforeseen and unfortunate result has attended gastrostomy so long after all the risks of peritoneal inflammation have been avoided.

W. M——, aged fifty-four, hitherto a perfectly healthy man, came under observation at St. Mary's Hospital in December last, complaining that for two months he had been getting weaker and thinner in consequence of difficulty in swallowing and the constant vomiting, or regurgitation, of his food. The man looked starved and ill. There was no sign of disease in any of his organs, nor any evidence of thoracic tumour, but a small bougie passed down the œsophagus was arrested at the cardiac end. The diagnosis was made of malignant œsophageal stricture, and he was accordingly taken into the hospital to be under closer observation, and that if it were found needful gastrostomy might be performed. He was an in-patient under the care of Dr. Sieveking from Dec. 9th to Jan. 12th; and although during this period the stricture remained as impermeable to bougie as before, he was certainly better able to take the food very carefully prepared for him, the sickness and regurgitation were controlled by a bismuth mixture, he gained five pounds in weight, and looked and felt decidedly stronger. He was enjoined to come back if he had any fresh trouble, and in a fortnight after his discharge he made his appearance again, all his old symptoms having recurred in a worse degree, and himself looking thoroughly exhausted and ill. It was resolved, therefore, that before opening the stomach some attempt should be made to restore his strength by careful feeding and nutrient enemata, and this had been so well accomplished by Feb. 21st, and the sickness now occurred so seldom, that the operation was performed on that day.

As to the operation itself there is but little to be said. Following the careful directions of Mr. Bryant,[2] an oblique incision three inches long was made about three-quarters of an inch parallel to and below the margin of the left ribs, and ending opposite the tenth cartilage. The soft parts were divided down to, but not through, the peritoneum, and all oozing of blood was arrested. The peritoneum itself was opened for an inch, and the stomach, seen lying immediately beneath the incision, was seized and drawn out by a pair of forceps. By means of two loops of fine carbolised silk then inserted into the peritoneal covering, about one-third of an inch apart, the stomach was brought and held well forward through the wound, and was stitched by a dozen fine silk sutures passed just into the muscular coat to the divided edges of the parietal peritoneum. The operation was conducted under the carbolic spray, and presented only this difficulty or trouble, that in putting in the last—happily the last—suture, a vessel was wounded, and bled so persistently as to necessitate plugging the wound with a sponge before applying the dressings. In the after history there were few points of special moment. On the evening of the 22nd, the temperature rose to 100° F., but gradually sank thereafter to normal, and continued so until March 11th, with the exception of one day, Feb. 28th, when it rose to the same height in consequence of some slight parotid swelling from cold. The stomach was opened on the fifth day by a small incision with a tenotomy-knife, and great help in this second part of the operation was derived from the silk loops which had been left in the peritoneal coats. The opening in the stomach gave exit for two days to a profuse quantity of dark, greenish, sour fluid, but afterwards the escape of gastric juice was greatly lessened, although for a week the oozing was sufficient to cause a good deal of redness, swelling, and tenderness at the lower margin of the wound. This, however, was relieved by poulticing. He was fed by the fistula as soon as it was made, and from that time forward he was fed without the least difficulty, and usually, though not always, without any regurgitation. By March 2nd all feeding by enemata, and by Slinger's nutrient suppositories, which had been found of the greatest service, was stopped, and he was so well as to be able to sit up in bed. His hunger was satisfied, he felt stronger every day, felt better in fact than he had done for some time before the operation, and was obviously gaining flesh. The wound was contracting naturally, he had not vomited since the operation, there was no indigestion, and the motions were well formed. By no possibility could he have been doing better, and it was hoped that in a few days he would be out of bed. But on the evening of March 11th his temperature rose to 101° F. without more obvious cause than constipation. It became normal again both night and morning until the evening of March 14th, when it rose to 101° F. He had been somewhat depressed all day, and that night he began to feel sick. He felt sick for several hours, and early on the morning of the 15th he began to vomit. The efforts at vomiting, for he brought up but little, were very violent, and afterwards he had intense pain. The vomiting ceased at 10 A.M., but the pain increased and was limited almost entirely to the region of his stomach, and here also there was undoubted tenderness. From this time onward he rapidly failed, the pain increased, the temperature rose to 103° F., he passed into collapse and died on the afternoon of the 16th, thirty-six hours after he first began to feel sick, and after the temperature had begun to rise.

From the more extended post-mortem record of Mr. Silcock the following facts are taken:—"Eight and a half inches below the level of the cricoid cartilage was a hard white growth resembling scirrhus cancer, about the size of a chestnut, forming a ring around the œsophagus, and greatly constricting its lumen. The mucous membrane over it was eroded and ulcerated. The lymphatic glands adjacent thereto were enlarged. The edges of the gastrostomy wound, which had been made in the anterior wall of the stomach, appeared healthy; the peritoneal surfaces were in perfect coaptation, and the adhesions were firm and organised. About a pint of yellowish effusion, in consistence like melted butter, was found in the peritoneal cavity. No lymph was to be seen on the surface of the intestines, which were, however, greasy to the touch and injected, their coats being softened and easily lacerable. The only plastic deposits found were a few spots of lymph on the outer surface of the peritoneal coat of the spleen. A large quantity of gelatinous lymph was effused into the meshes of the subperitoneal tissues in the neighbourhood of the stomach, especially around the œsophagus as high as the diaphragm, beneath the posterior layer of the small omentum, around the left kidney, and between the layers of the transverse meso-colon. The walls of the stomach were a third of an inch thick, and of an opaque yellowish-white colour. This was most marked on the posterior surface in the neighbourhood of the greater curvature, where it was in part obviously due to an effusion of lymph beneath the peritoneal coat. The mucous membrane of the stomach appeared to be swollen, and was of an opaque yellowish-white colour, with here and there a few patches and streaks of injected venules. The surface was nowhere eroded or ulcerated, except at the margin of the wound, where it appeared to have undergone some slight digestion or softening. The thickening of the walls gradually shaded off towards the pyloric and cardiac ends, where it ceased almost abruptly. The coats of the first portion of the duodenum, however, were in some measure thickened. The cut surfaces of the stomach everywhere exuded a creamy purulent fluid, which seemed to flow from the submucous and muscular coats, to the swelling and infiltration of which the thickening was mainly due.

[1] Clinical Lectures on Diseases of the Nervous System, by Thomas Buzzard, M.D., p. 152. Churchill, 1882.
[2] THE LANCET, vol. i., 1882, p. 728.

Except in one enlarged gland near the tumour no secondary deposits were found anywhere, and there was nothing specially noticeable about the other viscera. Microscopy showed that the tumour was a squamous epithelioma, and that one gland had been infected. The epithelial cells of the mucous membrane of the stomach were swollen and granular, were blocking the gland tubes, and had in part become disintegrated. The submucous tissues were infiltrated with inflammatory products, rendering them almost diffluent. The areolar meshes were crammed with leucocytes, and micrococci were abundant in the sections. The muscular coats were also swollen by reason of the inflammatory changes, but there was no lymph on the free surface of the peritoneal covering, although the peritoneum was inflamed and thickened. The mucous membrane at the margin of the wound showed no decided evidence of digestion, and was in much the same condition as the mucous membrane elsewhere, but not so markedly involved. The submucous coat was the seat of an intense inflammatory cell-proliferation, but not broken down, as was the case in other parts examined further from the wound."

Although there can be no doubt that it was from this remarkable purulent inflammation of the stomach that the patient died, it is not by any means so clear what cause gave rise to it. There was no phlegmonous condition or erysipelas about external parts, nor any evidence either from naked-eye or microscopical appearances that the inflammation started from the margins of the wound. The greatest care had been always taken to keep the opening sweet and clean, and although it was impossible after the second part of the operation, when feeding through the fistula began, to continue the Listerian dressings, neither cleanliness nor care had been abandoned. These facts notwithstanding, one cannot help fearing that the inflammation really began from the wound, and that in the absence of that wound the stomach would not have been attacked with this fatal gastritis. Recorded cases it is true lend little or no support to the septic origin of the inflammation, for in the majority of the cases where like appearances have been found, and where there was no evidence of general septicæmia, there had been no wound in the stomach, nor was any more certain cause discovered than excess in alcohol or deprivation of food. A very admirable account of this rare form of inflammation, which he calls "gastritis phlegmonosa," is given by Leube in Ziemssen's Cyclopædia,[3] and he there describes exactly the same post-mortem appearances as were presented in this case. Scattered here and there in medical literature Leube has found thirty-one cases, twenty-six in men, five in women; but it cannot be said that his consideration of them throws any more light on the clinical features or the pathology of the affection than does the history of this one patient. Auvray records an example after stomach wound,[4] but the most fully descriptive cases are those of Raynaud in a long paper on "Purulent Infiltration of the Walls of the Stomach."[5] This form of gastritis is perhaps not so uncommon as the number of recorded cases seems to indicate, for it often happens that the stomach is passed over in post-mortem examinations. Be that as it may, the history of this case and operation deserves to be placed on record, pointing to an unforeseen and apparently unpreventable danger which patient and surgeon have to encounter after gastrostomy, even in cases where there is every promise of success, where the operation is undertaken before the recuperative powers have been altogether lost, where the risks of peritonitis have been safely avoided, and there is a hopeful prospect that life may be much prolonged, and death by slow starvation be prevented.

TWO CASES OF

MALIGNANT (HÆMORRHAGIC) SCARLATINA TREATED BY CROTALUS.

BY JOHN W. HAYWARD, M.D.

CASE 1.—Miss H——, aged nine years, was apparently quite well on Oct. 5th, 1870; but in the evening she complained of sore-throat, with headache, chilliness, and dizziness. On examination the fauces and tonsils were found dark-red and œdematous. The only exposure that could be traced was that the cook in the house was laid up with diphtheria, and the only cause for that was that scarlatina was in the house of her family, and she had been there on Sunday ten days before. During the night the patient was very restless and feverish, and retched much and frequently, bringing up some dirty-looking mucus. At 8 o'clock next morning she was found to be extremely weak and very tremulous; her pulse was 160, very soft and small; the skin was hot, dry, and burning, with some brownish miliary rash on the chest; the tongue was furred, and the mouth dry; there was great thirst, but she drank only a little at a time, apparently because swallowing was very painful; the fauces and tonsils were mottled with rather bright red, and considerably swollen, as if with serous effusion into their structures, and there was a dark, dirty, sloughy patch on the left one. In consultation at 10 A.M. the case was diagnosed as malignant scarlatina of a very virulent type. During the day she grew steadily worse; the pulse increased in frequency and feebleness; great prostration and torpor supervened, so that she lay apparently unconscious, from which she was occasionally roused by retching of brown slimy mucus; the tonsils enlarged rapidly, making considerable fulness at the angles of the lower jaw, and causing the head to be thrown up and backwards; swallowing was extremely painful and difficult. In the evening of this day (Oct. 6th)—that is, about twenty-four hours after the beginning of the illness,—she grew rapidly worse, and continued to grow worse in every way during the night; she was extremely restless, moaning and attempting to turn about, but was apparently too prostrate to do so, and the dirty mucus trickled from the mouth. On the morning of Oct. 7th, all the symptoms were still worse; the throat was nearly closed, and she breathed with difficulty, with an occasional interruption, as if from the swollen condition of the tonsils and fauces, which appeared softened, jelly-like, and as if gangrenous; the head was thrown upwards and backwards as far as possible; there was severe retching when anything was put into the mouth, even a teaspoonful of cold water provoked it, and the matter ejected consisted of dirty brown mucus, apparently coloured with disorganised blood oozing from the mucous membrane, or resulting from the gangrenous state of the fauces and tonsils, and there were some bloody streaks as if from blood forced out by the act of retching. After the retching she would fall back on to the pillow, moaning in a very weak low voice, as if dying; and she sank down into the bed in a state of stupid lethargy, like a dying typhus patient. The breathing was irregular and jerky, sighing and intermittent; and there was loose tickling, almost incessant cough, as though from trickling of the discharges into the larynx; the pulse was scarcely to be felt; the rash was only faintly visible, and was brown and rough. It was now only about thirty-six hours since the beginning of the attack, but the case was apparently hopeless under the ordinary treatment. It was therefore determined to try the power of crotalus, which had been much recommended in the treatment of putrid and hæmorrhagic diseases, when introduced subcutaneously as well as by the mouth. The cuticle was consequently removed from round the throat by a cantharides blister, and to the exposed cutis a wet compress sprinkled with crotalus was applied, and renewed at first after half an hour and then every three hours, also a dose dissolved in a teaspoonful of water was dropped on the tongue every half hour. The effects were watched anxiously. There was no more retching after the first application of the crotalus to the denuded cutis, even when teaspoonfuls of beef-tea were put into the mouth; but the restlessness, pulse, and other symptoms continued much the same all the evening. During the night she gradually grew less distressed and dozed at intervals; towards morning she really slept, and the breathing gradually became less laboured and irregular, and on being roused for some medicine, she opened her eyes, and, seeing her father at her bedside, exclaimed, "Oh, pa!" as if only just then realising his presence. By eight o'clock in the morning of October 8th the pulse could be distinctly felt, and was only 120, the respiration was becoming easy, the head was less thrown back, and the struggle appeared to be turning in her favour. The rash was now freely out on the body and legs, but it was of a purple colour. The same medicine was continued internally, but now only every two hours, and the crotalus was no longer sprinkled on the compress. During the day of October 8th the rash gradually brightened in colour, and all the distressing symptoms receded rapidly, so that by evening she was able to drink with but little difficulty or

[3] Vol. vii., H. 2, p 43, Germ. edit. [4] Thèse, Paris, 1866.
[5] Bulletin de la Société Anatomique, tom. vi., série 2, 1861.

pain; the respiration was almost normal and the pulse was 100, and had gained considerably in force and fulness. She slept well during the night, and the next day—that is, October 9th—her appetite began to return, and she looked wonderfully better, the change being really marvellous. From this date her recovery went on rapidly and steadily. The cuticle exfoliated rapidly, so that by the aid of vinegar baths and lard inunctions the skin was about natural on October 14th. She was attacked on the 5th, nearly dead on the 7th, crotalus treatment was begun on the morning of the 7th, it rallied her almost immediately, and she recovered so rapidly that a very favourable prognosis was given on the 8th, and she was well on the 14th.

CASE 2.—J. D. H——, aged thirteen, brother of the above, began to complain on the fifth day after his sister—that is, Oct. 10th. His attack began in the morning, and was marked by much the same symptoms as in his sister's case. There were great weakness, much dizziness, trembling, and staggering to falling before evening, and there were headache and nausea; the fauces and tonsils were dark red, and during the day they became tumid, and swallowing became difficult and painful. Pulse 130. He had a restless night, with increase of all the symptoms, especially those of the throat. The prostration was extreme, and on blowing the nose it bled freely. The next morning, Oct. 11th—that is, the morning of the second day of the attack—there was some brown miliary rash on the chest, and all the symptoms were worse. A blister was applied, and crotalus used as in the former case. During the day there was much hæmorrhage from the nose, and reddish mucus hawked up from the throat. In the evening he appeared much the same, and epistaxis returned twice during the night. The next morning, Oct. 12th, the rash was well out, and the throat symptoms were diminished; he improved during the day, and had some sleep during the night. Next morning it was evident that he was to recover. He made a like rapid progress as his sister, and was soon in fair health again. In this case, as in the former, crotalus arrested the blood-poisoning at once, and turned the scale in favour of the patient within a few hours.

The above notes of these two interesting cases were written at the time, and have been preserved, and withheld from publication in order to test the drug in similar cases before publishing them. This has now been done over and over again, until the writer is thoroughly convinced that the above facts were no mere coincidences, and he now lays them before his colleagues in the hope that the drug will be used in similar cases, for which hitherto there has been no adequate remedy.

Liverpool.

SUBLINGUAL TUMOUR OCCUPYING THE LEFT SIDE OF THE MOUTH; IMMENSE SALIVARY CALCULUS REMOVED BY INCISION INTO THE GLAND.

BY GEORGE MACKERN, M.D. LOND.

THE following case of tumour under the tongue is of interest, owing to the large size of the calculus which was found embedded in the substance of the sublingual gland.

James G——, an Irishman, aged fifty-one years, came complaining of a large swelling in the mouth, and of excruciating pain in the left ear and whole left side of the head. For several months he said he had noticed the swelling, but during the last few weeks only had he experienced difficulty in swallowing or speaking. During the last fortnight the pain had become so severe as to prevent his sleeping or resting in any way. On being questioned, he said that as long ago as ten years he had had occasional pricking pains in his mouth, and that off and on ever since he had been troubled with abnormal sensations in his tongue.

On examination, a tumour was seen occupying the space between the left outer border of the tongue and the left alveolar arch of the lower jaw; this tumour appeared to be about two inches long by one inch and a half broad, and extended from the frænum linguæ in front outwards and backwards along the mucous membrane of the under surface of the tongue. In consistence it was hard and brawny, and the mucous membrane covering it was thrown into folds and had a peculiar livid look. In front, near the frænum, was a minute opening (the end of the salivary duct), and further back an ulcerated spot which, however, corresponded in position with a prominent molar tooth, from this ulcerated spot a few drops of pus exuded. Pressing the tumour backwards, and it moved easily as a whole, gave rise to great pain in the ear and left side of the head. Just below the jaw in the submaxillary triangle a small hard and painful swelling could be felt, this he said had only shown itself quite recently, and it appeared to be a secondary inflammatory product. The symptoms complained of were—pain and difficulty in speaking or moving the tongue; painful deglutition; dryness and soreness of the left side of the mouth; excessive pain of late in the left ear and left side of the head. I diagnosed an inflamed and swollen sublingual gland due to obstruction of the duct (in the "remarks" will be found my reasons for this), and at once introduced a small probe into the minute opening near the frænum. The probe passed but a short way and apparently just under the mucous membrane merely; passing a bistoury in I slit the canal up along the probe, some drops of blood and some clear viscid saliva escaping. Carbolic solution was then injected and hot fomentations externally and internally were ordered, and the man told to come back in two days.

On seeing him again the surface of the tumour was less congested than before, and the pain had decreased a little. I now slowly and cautiously enlarged my first opening, going backwards and somewhat downwards into the very substance of the tumour. In a few moments my knife grated against something hard, and the nature of the case became evident. After a good deal of careful dissection a whitish calculus was laid bare at a depth of about half an inch. The anterior portion of the stone was very adherent, and had to be dissected out right round. With dressing forceps the stone was now easily lifted out of its bed, and the resulting cavity well syringed out with carbolic solution. Some blood mixed with salivary secretion escaped during the operation, but a little pressure easily stopped the bleeding. Afterwards some carbolised oiled gauze was stuffed into the cavity, which was allowed in this way to heal up from below.

The growth removed is a hard, white, calcareous-looking mass, irregularly egg-shaped; the small end, which *in situ* was anterior, being quite pointed, very hard, and shiny, as if polished. The surface is rough, like morocco leather, but with bosses here and there. The stone measures an inch and one-third in length, two-thirds of an inch in width at its broadest part, and three-eighths of an inch in thickness; it weighs eighty-two grains (five grammes and a half). It can be scraped with a knife, but is not soft or friable. On touching it with strong nitric acid there is no effervescence, hence the surface at any rate does not consist of carbonate of lime; but the addition of the acid, however, brings out a strongly fetid odour. The chemical composition is not yet determined.

Remarks.—The diagnosis of cancer had been made by some other practitioners, but on careful examination it was evident that the tumour could not be cancerous, for these reasons—(1) The utter absence of anything like an infiltration of the surrounding tissues, the mucous membrane up to the very edge of the tumour being perfectly smooth and free; (2) the mobility of the tumour as a whole; (3) the long history of the case; (4) the fact that isolated cancer of the sublingual gland is unknown to occur, or is very rare. From ranula the tumour was easily distinguishable by its hardness, solidity, and general appearance and position. Some use was made of the presence of the swelling in the submaxillary region as an argument in favour of cancer, but from its extreme sensibility and its recent appearance I judged it to be inflammatory merely. On referring to the books at my command I find that the largest salivary calculus on record is figured in Bryant's Surgery, vol. i., p. 518, and that one weighed only forty-eight grains.

Note.—The operation was followed by a continual and troublesome discharge of thick saliva, which ceased on the third day, and was replaced by suppuration; the pus welled from below, and apparently was connected with the tumour in the submaxillary region, which for the next few days continued to be very painful and more swollen than before. On the eighth day the man was well, but in the submaxillary region there still remained a small hard tumour like a marble; it was not painful, nor did it cause any inconvenience.

Buenos Ayres, South America.

ON A CASE OF

MYXŒDEMA, WITH REMARKS UPON THE ETIOLOGY OF THE DISEASE.

BY J. OSWALD LANE, B.A., M.B. CANTAB., &C.
HOUSE-SURGEON TO THE NORTHAMPTON INFIRMARY.

M. R——, aged forty-eight, attended this hospital as one of Dr. Buzzard's out-patients with the following history:—Father and mother died of old age; one brother alive and healthy. There is no evidence of a neuropathic predisposition, neither does she know of any relatives who have been affected with a similar complaint. She has had six children, the last one eight years ago, from which time she dates her present illness. She denies having been laid up with any previous illness, though for some time after each confinement she was accustomed to feel very weak and unable to do her work with her usual vigour. She had a particularly "bad time" at her last confinement, and has ever since suffered from weakness and debility. No syphilitic history; she remembers having been frightened before her last confinement, and has had a good deal of mental anxiety. She complains of having had a feeling of lassitude, weakness, and nervousness since the above-mentioned date; at times has noticed giddiness, noises in the head, sparks in front of her eyes, with a feeling of pressure on vertex, disturbance of sleep, and loss of memory. Speech has become slower, with a pause between words. Walking slow and awkward; at times has fallen down. She has noticed the swelling of her face and hands only during the last six months, and she distinctly says that the nervous symptoms I have enumerated all preceded the latter. Has had sickness at times; has not passed much water.

When she first presented herself here her condition was as follows:—Her physiognomy on the first glance was that of a person suffering from renal dropsy; but on closer examination I found the œdema to be of a different character, in that it did not pit on pressure. The parts of the face most affected were the eyelids, lips, cheeks, and nose (the first two especially). The eyelids were pearly, semi-transparent, ridged, with drooping of the lower ones. The cheeks were puffy, so that the features were rounded in contour, with a circumscribed blush on both. The lips were pendulous, thick, and of a purplish tint. The nose was swollen, with dilated nostrils. The expression was stolid and sad, with a lack of mobility. The skin over the whole body was very dry and harsh; the patient said it had been "scaly at times." The hands were markedly swollen, so as to be of a "spade-like" appearance, and were clumsy, with a dilatation of the capillaries on the dorsal surface. The lower extremities were not swollen. The patient had lost much of her hair, while many of the teeth were decayed. She had a train of nervous symptoms, such as slowness of speech, which was deliberate, monotonous, of nasal tone, frequently swallowing before speaking. The patient's movements were slow, and her gait awkward, with a feeling of being about to fall. She complained of headache and giddiness, and her memory was decidedly faulty. There was diminution of tactile sensation, and the conduction of sensory impulses was markedly retarded. The muscles acted very feebly to faradisation, and the reflexes were diminished, the patellar almost absent. She frequently feels chilly. There was no change in the thyroid glands. The heart sounds were normal, and not accentuated; no physical signs of hypertrophy. The lungs were normal. The urine was examined every time she attended, and I was unable to detect even the slightest trace of albumen, though numerous tests were used. The temperature varied between 96° and 98°. The pulse was usually about 54, always slow. The ophthalmoscopic appearances were natural. The only drugs administered were iron, quinine, and strychnia.

I have published this case, first, as the patient seems to present most typically the symptom of myxœdema; secondly, on account of the improvement the patient underwent during the four months she was under my observation, since at the end of that time her speech, gait, intelligence, and other nervous symptoms were decidedly improved, while the characteristic swelling had not made further progress; and, thirdly, the case is interesting on account of the absence of even a trace of albuminuria, or the presence of any other sign of nephritic disease.

I would now make a few remarks as to what seems to me to be the probable etiology of the disease. In several cases which I have seen there seems to me to be a striking resemblance in the symptoms of the disease to some of those frequently developed in some forms of lesion of the central nervous system, and my reasons for thinking so are that the characteristic nervous symptoms of the disease are particularly constant, and that they have become distinctly well marked before any signs of œdema has developed itself; in all the cases I have seen many nervous symptoms have been present, such as peculiar gait, slowness of speech, impaired sensation, subnormal reflexes, giddiness, impaired memory; furthermore, in three cases the disease has shown itself after some mental shock or anxiety; to this cause I would attribute the frequency of the disease in multiparæ, as a rapid succession of pregnancies combined with mental anxiety would probably lead to exhaustion of the system, and especially the nervous one; in addition, many of the symptoms which present themselves are much allied to some of those observed in disseminated sclerosis and locomotor ataxy. The slowness of pulse and lowness of temperature are additional factors in aid of this hypothesis.

Northampton.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nullaautem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

KING'S COLLEGE HOSPITAL.

PARALYSIS OF THE PALATE AND PHARYNX, COMPLICATED WITH PNEUMONIA, BOTH PROBABLY DIPHTHERITIC; RAPID RECOVERY; REMARKS.

(Under the care of Dr. FERRIER.)

FOR the following notes we are indebted to Mr. St. Clair Thomson, M.R.C.S., house-physician.

David C——, aged thirty-four, a strong, healthy-looking Covent-garden porter, came to the out-patient department on April 12th, 1883, complaining of difficulty in swallowing. He then had complete paralysis of the palate. It did not rise either in inspiration or phonation, and gave no reflex action. There was no affection of the tongue or lips. He could pronounce all the vowels, but could not pronounce the explosives; the voice was nasal in tone. He could whistle if the nostrils were closed, but not otherwise. Liquids, on swallowing, came back through the nose, but if that was held he swallowed fairly well. On being questioned, he stated that he had had a sore-throat fourteen days previously, and that soon afterwards he noticed some difficulty in swallowing, owing to the tendency of fluids to return through the nose. No further history of diphtheria could be obtained. Late on the following evening, April 13th, he was admitted to the hospital, complaining of cough, feverishness, and inability to swallow. His temperature was 101·6°. The following morning he was found not to have slept at all, owing to the cough. He had swallowed nothing through the night. He was able to take milk into his mouth, but was quite unable to swallow it, even with the nostrils closed; the attempts to do so produced violent coughing and hawking. The voice was so nasal in tone that it was almost unintelligible; the condition of the palate remained as on the previous day. The temperature was 103°; the respiration 64, shallow, and chiefly thoracic; the cough was frequent, of a high-pitched, ringing character; the sputum, which was expelled with difficulty, was yellow and purulent. The front of the chest was resonant with scattered rhonchi and mucous râles; there was the same condition over the back of the right lung, and over the left base there was complete dulness below the fourth rib, with fine inspiratory râles and marked bronchial breathing. The pulse was 136, fair quality, and regular; the cardiac area and sounds normal. The urine was acid, sp. gr. 1028, turbid with urates, but free from albumen. He was fed

by the stomach-pump twice a day, being given half a pint of beef-tea, half a pint of milk, one egg, and two ounces of brandy on each occasion. For his thirst, which was intense, he was allowed ice to suck. On the 15th the temperature was 102·6°, the pulse 134, and the respiration still 60. He had slept very little. On the 16th, the third day of admission, he coughed less, and slept well and quietly. He swallowed several ounces of milk with no choking and little coughing; the voice, though still nasal, was much clearer. The temperature fell to 101·2° and 100·6°; the respiration to 44 and 36, the pulse to 108 and 100 (taken morning and evening). On the 18th, the fifth day in hospital, he was able to swallow quite naturally, without choking or regurgitation through the nose. The palate moved both on inspiration, phonation, and on being touched. He could whistle and the voice was quite natural, having lost all nasal quality. The temperature had fallen to normal, the pulse to 80, and the respiration to 32. The dulness of the left base was less intense, the breathing was still tubular round the angle of the scapula, with some bronchophomy. Feeding by the stomach-pump was from this date abandoned, and he fed himself by the mouth, but still with fluid diet. On the 31st, his eighth day in hospital, he was placed on full diet. The pneumonia and bronchitis cleared up and he was discharged, quite recovered, on April 30th.

Beyond the rest in bed and general treatment above indicated, he received no special treatment. As soon as he was able to swallow at all, he was given a sedative for his distressing cough, later on an expectorant, and afterwards a tonic of quinine.

Remarks by DR. FERRIER.—Though in this case there was no clear history of diphtheria, yet we are justified in considering the sore-throat to have been of a diphtheritic nature by the course and termination of the paralytic symptoms exhibited by the patient. A local paralysis of the palate appearing within a fortnight after a sore-throat, rapidly involving most of the muscles innervated by the pharyngeal plexus, and terminating in complete recovery within ten days is typical of diphtheritic paralysis. The other symptoms exhibited by the patient—viz., the severe broncho-pneumonia,—are also well known in connexion with diphtheritic infection, and probably are of the same nature as the pathological changes in the lungs which result from paralysis of the vagi. In great measure the pneumonia is of a traumatic nature from the entry of foreign bodies—food, drink, &c.—into the air-passages. Why the diphtheritic poison should specially affect the regions innervated more especially by the medulla oblongata has not yet been cleared up. There is no distinct relation between the severity of the throat affection and the subsequent occurrence of paralysis of the palate; and paralysis of the palate may occur as a local affection when the diphtheritic poison has entered the system at any part, as by the finger. The actual morbid changes characteristic of diphtheritic paralysis have been the subject of much recent investigation, the researches of Dèjerine apparently establishing the existence of a parenchymatous neuritis secondary to a slight degree of myelitis of the anterior horns.

NEWCASTLE INFIRMARY.

STRICTURE OF ŒSOPHAGUS; GASTROSTOMY A DEUX TEMPS; DEATH ON THE EIGHTH DAY.

(Under the care of Mr. PAGE.)

FOR the following notes we are indebted to Mr. Ernest Hudson, house-surgeon:—

C. S——, male, aged fifty-nine years, was admitted on April 9th, 1883. For fourteen years he had been a county court bailiff, and before that "boots" in an Edinburgh hotel. In early life he was a postilion. He stated that in May, 1882, he was eating hurriedly in a restaurant, when a portion of meat was arrested in its progress through the gullet at a point which he referred to the angle of Ludovicus, and was immediately rejected. He had never before noticed any difficulty in swallowing. For six months the difficulty in swallowing solid food gradually increased; for five months before admission he had lived entirely upon liquid food. For the last ten days he had been unable to swallow even fluids. He had suffered pain of a gnawing character in the epigastrium. He was treated at first by a druggist, and subsequently by a medical man, for indigestion. Four months before admission a bougie was passed, and he was told that he had a small cancer of the gullet. No assignable cause of the stricture could be made out. There was no history of syphilis, and he had never swallowed any irritating substance. There had never been hæmatemesis. During his career as hotel "boots" he drank very freely, sometimes as much as half a bottle of whisky a day. There was no family history of tumour of any kind. He had lost 3 st. in weight since his illness began. Pulse 120, small, irregularly intermittent; respiration shallow, chiefly thoracic; tongue dry and brownish; abdomen much shrunken and fallen in. Mr. Page passed a full-sized œsophagus bougie, which was arrested eleven inches and a half from the teeth. He was given a teaspoonful of milk, which, though apparently swallowed, was returned after about half a minute into the mouth. Ordered enema containing one ounce of brandy and three ounces of beef-tea thrice daily. It was eventually decided to perform gastrostomy.

April 15th: Chloroform having been administered, Mr. Page made a superficial incision, commencing at a point on the left of, and an inch and a quarter from, the lip of the ensiform appendix, extending downwards for two inches and quarter, parallel with, and an inch and a quarter from, the lower thoracic margin. The fascia transversalis was exposed by a series of careful incisions. Two small vessels were ligatured and two more torsioned. All oozing having ceased, the fascia, and subsequently the peritoneum, were divided upon a hernia director. Through the opening thus made Mr. Page withdrew, with the finger and thumb of the left hand, first a portion of the colon, which he returned, then a portion of the omentum which led up to the great curvature of the stomach, the anterior surface of which was attached to the edges of the incision through the fascia transversalis and the parietal layer of the peritoneum by interrupted sutures of silkworm gut, four on either side and one at the inner extremity. The surfaces of the outer extremity of the wound were brought into, and retained in, apposition by two superficial interrupted catgut sutures. A small portion of sponge was placed between the surfaces of the wound. Protective and carbolic gauze, Listerian dressing. The carbolic spray was used throughout the operation, which lasted fifty-nine minutes.—15th: No vomiting; no pain. Has been fed every four hours with enemata of beef-tea and brandy. At 11.30 P.M., restless; three minims of solution of morphia injected hypodermically; slept quietly until 3 A.M. Micturated voluntarily. Evening temperature 100°.—16th: No pain. Fed by enemata, last two of which have not been retained. At 9 P.M. (sixty hours after operation) Mr. Page made with a bistoury a small opening into the stomach, a No. 8 indiarubber catheter was introduced, through which fluid food was injected, and by which he was fed until his death. Temperature 100°; pulse 130; respiration 36.—17th: Complains of slight uneasiness over right lateral thoracic region. Temperature 100°; pulse 120; respiration 26.—18th: No pain. Morning temperature 99°; evening temperature 101·2°; pulse 120; respiration 26.—19th and 20th: The temperature has varied between 100° and 102°; pulse 120; respiration 18.—On the 19th he commenced to ramble, and continued to do so until his death.—On the 22nd he died, 160 hours after operation.

The necropsy was made thirty-four hours after death. The surface exposed in the wound was greenish in colour, and emitted a slight putrefactive odour. No effort of repair had been made in the wound in the abdominal wall, or of union between the apposed surfaces of the parietal and visceral portions of the peritoneum in this region. On opening the abdomen no serous or plastic peritonitis was found. The stitches uniting the stomach to the abdominal parietes were quite firm, and the tissues in the neighbourhood presented no appearance of ulceration or inflammation. The opening into the stomach was situate an inch and a quarter from the great curvature, and four inches from the pylorus. The stomach contained a small quantity of clotted milk; the mucous membrane was pale and somewhat opaque, and coated with a tenacious mucus. In the œsophagus was situated an ulcer, two inches long, its upper being five inches from the upper border of the cricoid cartilage, occupying almost the entire circumference; its edges were irregular, overhanging, but not indurated; its base flocculent and pale, and soft to the touch. Heart weighed eight ounces, was encased in much fat, its substance pale and easily broken down under the thumb, and valves healthy. No pleuritic adhesions existed. Both lungs were very œdematous. The upper lobe of the right lung was consolidated, crepitation was absent, and it broke down readily on pres-

sure. The right lung weighed thirty-six ounces, and the left lung twenty-three ounces and a half. The right kidney weighed five ounces and a half. The capsule was slightly adherent. Projecting from the surface were two cysts, one about the size of a marble, the other slightly smaller; both contained a yellowish serous fluid; the substance was pale and somewhat tough. The left lung weighed five ounces, and contained one similar but smaller cyst.

ST. BARTHOLOMEW'S HOSPITAL, CHATHAM.

ACUTE TRAUMATIC TETANUS, COMPLICATED WITH FACIAL PARALYSIS; DEATH; REMARKS.

(Under the care of Mr. NANKIVELL).

J. G. L——, aged thirty-three, a working man, attended the out-patient department on March 12th, 1883, suffering from a slight attack of facial erysipelas, caused by a wound of the bridge of the nose, received two days previously whilst at work. He was treated as an out-patient till March 17th, when, feeling quite well, he at his own request was discharged.

On March 19th, he again presented himself, stating that on the afternoon of the 17th he noticed he could not open his mouth or close his right eye. He was made an in-patient.

State on admission:—The lines and markings on the right side of the face are obliterated, and the eye is wide open and cannot be closed. The mouth and tip of the nose are drawn over to the left side, and his lower jaw can only be opened so as to admit of the introduction of the handle of a spoon. The man has no ear symptoms. Ordered some calomel and jalap and a mixture containing ten grains of iodide of potassium three times a day.—20th: The paralysis of the face can be completely neutralised by a mild galvanic current applied over the seventh nerve. Patient's breathing is considerably affected, being whistling in character. Trismus much the same.—21st: Complains of pain at epigastrium. The muscles of the neck and back feel hardened. Ordered belladonna and chloral.—23rd: Early this morning the patient had a very severe spasm of the muscles of respiration, being nearly asphyxiated. There was also opisthotonos. The paralysis of the face still exists, and the trismus is as complete as ever.—24th: Has had several general spasms since yesterday. He died this afternoon.

Remarks by Mr. NANKIVELL.—Acute tetanus, conjoined with paralysis of the seventh nerve, must be a rare affection. I have seen a tolerably large number of cases of tetanus, but have never met with this complication. The muscles of the face are usually in a state of tetanic contraction, producing the "tetanic grin," which was entirely absent in the case now under consideration. Mr. Poland, in his article on Tetanus in Holmes's System, states that in two cases of tetanus at Guy's the orbicularis palpebrarum was involved, inducing closure of the lids. In my patient the eye was wide open and could not be closed. The text-books I have been able to consult do not mention tetanus complicated with facial paralysis. I have, therefore, thought it desirable to place this case on record. I would add, in conclusion, that March 17th, the day on which the man last came to the hospital as an out-patient, was cold and wet. It has occurred to me that he might have caught cold on his way home, and so induced inflammation of the nerve within the aqueductus Fallopii, which would account for the paralysis.

Medical Societies.

EPIDEMIOLOGICAL SOCIETY.

The Sanitary Lessons of Indian Epidemics.

AT a meeting of the Society on Wednesday, July 4th, 1883, Dr. Buchanan, F.R.S., President, Surgeon-General J. M. CUNINGHAM, Sanitary Commissioner with the Government of India, read a paper on the above subject. He began by referring to the views he had expressed regarding cholera and other Indian diseases at a meeting held by the Society ten years ago, and proposed to inquire how far those views had been altered or confirmed by further experience. The field of observation in India is very large, and especially fitted, by its extent, the variations of race, and local conditions, for the study of epidemics. The large bodies of troops and prisoners scattered over this enormous area give exact data, which are supplemented by the statistics obtained regarding the general populations. These data deserve much more attention than they have hitherto received. India has contributed largely to our knowledge in other fields, both of peace and war and in sanitary matters, also much may be learned from Indian experience; but in order to benefit by this experience it is essential that the history of disease should be considered not only from a local, but also from a general point of view. The facts must be most carefully collected; opinions must not be confounded with facts; all the facts must be collected, and not only those on one side; and solitary cases of epidemic disease must be studied with as much care as the many cases of the epidemic itself. Mere relation of time, a mere coincidence, must not be regarded as proof that the two events concerned stand to each other in the relation of cause and effect. It is essential that all evidence should be carefully weighed, and that undue value should not be attached to one class of facts on the plea that they embody positive evidence, to the entire exclusion of another set of facts which are considered as embodying only negative evidence. The theory which attributes epidemic or other diseases to importation is no explanation, but merely refers the question back to an anterior state of things—in other words, to the place from which the disease is said to have been imported. On inquiring into the causation of disease nothing must be assumed, neither the existence of germs nor anything else, but each step must be taken as the result of strict logical induction based on well-ascertained facts. These general principles are of vast importance in dealing with the difficult questions concerning disease, and especially concerning epidemic disease in India. The propositions that cholera is due to a germ originated in the delta of the Ganges, and that it is thence carried by human beings, rest on no such evidence; they are, on the contrary, opposed to the great facts now known regarding the disease in India: the general direction taken by cholera epidemics, the proved immunity of attendants on the sick, the small proportion of villages attacked even within the epidemic area, and others that might be mentioned. The only means of prevention of cholera is to be found in sanitary improvements and in removal from the locality where attacked, for its localisation is one of the most peculiar characteristics of the disease. Experience tells much the same general truths regarding enteric fever, though this in India is in the main a disease of young Europeans new to the country; the importation and germ theory will not account for it. Enteric fever in India is the result of climate telling on constitutions unaccustomed to the strain, and favoured as all diseases are by insanitary local conditions. It is to be classed with other forms of what is known as malarial fever. It is not necessary to find an entity to account for disease. The most powerful forces we know in the world, such as the wind, electricity, and steam, do not owe their powers to any entity that can be seen under the highest magnifying power. These are not mere theoretical views, they have a very practical bearing; they lie at the root of all sanitary progress. The commonly and too hastily accepted theories of germs and contagia have had the most disastrous consequences, causing much domestic misery by needlessly separating members of the same family at a time when their duty clearly lay in attending on their sick relatives and friends; they have also engendered needless alarm, which is most favourable to disease; they have caused the imposition of quarantines, which are but the natural outcome, and which are most harassing and annoying, and can be productive of no benefit; and they have caused the neglect of sanitary improvements, which are the only real preventives of disease. All this is very forcibly illustrated by what is going on in Egypt, where soldiers with fixed bayonets are attempting to stay cholera; they might just as well attempt, with fixed bayonets, to stay the wind, the rain-cloud, or the thunderstorm. Dr. Cuningham concluded by saying now was the time to see that our own house was in order, and that our sanitary condition was good.

In the discussion which followed, the President, Surgeon-General Murray, Mr. Edwin Chadwick, C.B., Brigade Surgeon J. B. Scriven, Surgeon-General De Renzy, and Sir Joseph Fayrer, K.C.S.I., M.D., took part.

ACADEMY OF MEDICINE IN IRELAND.

Hæmophilia.—Muscular Spasms.

A MEETING of the Medical Section was held on March 16th, Dr. WM. MOORE, President of the Section, in the chair.

Dr. MCDONNELL exhibited a case of Hammmer-cramp, and Dr. STOREY a case of Hæmatrophia Facialis.

Dr. FRASER read a paper mentioning some instances of Serious Bleeding following trifling injuries, and then described two cases of Sudden Death from Sanguinaceous Apoplexy occurring in individuals who had previously suffered from bleedings of the nose, lungs, &c.—Dr. HENRY KENNEDY related a fatal case of purpura in which the post-mortem examination revealed an extensive effusion of blood over the surface of the brain; and he referred to Latour's observations on hæmorrhage.—Dr. COX referred to a gentleman the subject of hæmorrhagic diathesis, in which a chill appeared to be invariably the exciting cause of the hæmorrhage. In this case there was a well-marked family history of the diathesis.—The PRESIDENT mentioned a case of an old lady who suffered from severe epistaxis, and shortly afterwards became completely demented.—Dr. FRASER, in reply, said he introduced the first two cases merely to show that he was not overlooking the subject of hæmorrhagic diathesis. In such cases the blood was almost water; but in the cases of the gentleman pointedly alluded to, he never saw better clotting blood. The hæmorrhage in his case was not produced by a chill, but he appeared to form more blood than was required, and this was eliminated by nose, lungs, or kidney.

Dr. R. MCDONNELL showed to the Section a patient, a young man, twenty-two years of age, whose right arm was subject to muscular spasms. The patient was a nailer by trade, and had been since he was eleven years old more or less hard at work at this occupation. The spasmodic jerkings of the muscles, which interfered with his occupation, began about seventeen months ago, and after the first three months became so violent that he had to give up work altogether. The case was one of functional spasms unaccompanied by pain, and is an affection very similar to writer's or scrivener's cramp, although all the muscles supplied by the brachial plexus seem to be affected, and those around the shoulder-joint, especially the great pectoral, seem to be most so. The treatment consists in regular, orderly, rhythmical movements of the limbs, as was so successful in a very similar case reported by Dr. G. V. Poore in the *Practitioner*, Sept. 1872.—Dr. FOOT said this man had been under his care for a considerable period, during which time there was a marked improvement in his symptoms. He did not consider it at all a wonderful case. He thought it was analogous to other cases, such as telegraphists, milkers, violin and pianoforte players. He was not aware that it differed from several cases recorded by Dr. Frank Smith of Birmingham, which was a centre of nail-making. He never thought there was any approach to chorea, as when in bed the muscles were perfectly quiet.—Dr. HENRY KENNEDY remarked that Dr. Harley had succeeded in curing similar cases by huge doses of succus conii, two ounces at a single dose.—The PRESIDENT and Dr. F. C. MOORE having also taken part in the discussion, Dr. MCDONNELL replied. He said that there were two points raised by Dr. Foot in reference to the case. First, there was no difference of opinion as to the nature of the case, which belonged to the category of scrivener's palsy, but differed from the tremor in piano players, &c. His case also differed from those of Dr. Frank Smith in not having general paralysis. Dr. Smith's cases bore no relation whatever to scrivener's cramp or hammer cramp. The second point was that Dr. Foot did not seem to think that the case belonged to chorea, because the patient was quiet at night. But so far as his (Dr. McDonnell's) experience went, in any except the most exaggerated case of chorea the movements were entirely stopped during sleep.

BRISTOL GENERAL HOSPITAL.—A public meeting, which was of an enthusiastic character, was held on the 5th inst. at the Guildhall, Bristol, the Mayor being in the chair, for the purpose of appealing to the citizens to aid in the liquidation of the debt of £9000 incurred by the works connected with the new drainage and other improvements of the hospital.

Reviews and Notices of Books.

Nouveau Dictionnaire de Médecine et de Chirurgie Pratiques. Directeur de la Rédaction Dr. JACCOUD. Tome XXXIII. Pp. 828. 1882.

THE chief articles contained in this volume are Secretion, by Mathias Duval; Sensibility, by G. Ballet; Septicæmia, by A. Guérin; Simulées (Maladies) and Strangulation, by Maurice Laugier; Sommeil, by M. Duval and Rey; Soufre, by A. Huton and Prunier; Sousclavière (Artère), by Poinsot; Speculum, by Gallard; Sperme, by Duval and Vibert; Sterilité, by Siredey and Danlos; Stomatitis, by A. Chauffard; Strabisme, by Javal and Abadie; Strychnia and Strychnées, by Chapuis and Ovy.

M. Duval's article on Secretion is well worked up to the present day. After noticing the high temperature of the venous blood and of the secretion of the salivary glands, he observes that it is evident that phenomena of combustion are taking place in the cellules of the glands, due to oxygenation, or at least of disintegration, though of a complex nature. In proof of this he adduces the recent researches of A. Gautier on the alkaloids derived from proteids. Gautier and Selmi have, it is well known, discovered in putrefying corpses various poisonous alkaloids known under the name of *ptomaines*. Gautier has further shown that these alkaloids are normally found in most of the secretions, and especially in the saliva, a fact of great significance in relation to the nature of the acts of disassimilation, for the alkaloids in question are the products of anaërobic fermentation. This at first sight appears to be in contradiction with the fact of their occurrence in the healthy organism, for, according to classical notions, if the intimate acts of nutrition are comparable to fermentation, they can only be regarded as aërobic fermentations. On more carefully observing the phenomena, however, it does not necessarily follow that because oxygen is introduced to all parts of the body by the respiratory process and by the blood that the successive acts of assimilation and disassimilation must be aërobic. Indeed, it has been shown by A. Gautier that whilst four-fifths of our internal combustion are true aërobic fermentations, comparable to the oxidation of alcohol under the influence of the mycoderma aceti, one-fifth of the disassimilative combustion of the tissues in general and of the glands in particular is produced at the expense of the tissues themselves, and without the intervention of any extraneous oxygen. Hence it is reasonable to expect in these organs the same compounds that are found in putrid or anaërobic fermentations, such as ammonia, indol, phenol, and the butyric and acetic acids, as well as the organic alkaloids, often poisonous, which under the name of ptomaines have recently attracted so much attention amongst chemists. M. Duval discusses the question of the actual formation of the secreted matters, whether they proceed from cells which only yield up their contents or from cells which break down. In some instances, as in the case of the milk and in the sebaceous glands, all stages in the breaking down of the cell may be observed, whilst in the salivary glands the cells are peraistent, and the changes they undergo have been well worked out by Heidenhain, Kühne, Lea, Langley, and others. From the researches of these observers it is seen that there are two types of glands. In one, the albuminous type of gland, represented by the parotid of the rabbit, during repose the cells swell, and contain a large quantity of clear material, to which the term "paraplasm" has been given, which does not colour with carmine. After action the cells become smaller, the paraplasm in great part disappears, and a granular protoplasm remains which does colour with carmine. In the mucous glands, represented by the submaxillary and sublingual, there are two kinds of cellular elements—

voluminous, transparent cells of cylindrical or pyramidal form, with the base applied to the wall of the acinus, and a flat nucleus; and smaller, angular cells, formed of granular protoplasm, with rounded nucleus. Three or four of these compressed together form the demilunes of Gianuzzi. In action the larger cells disappear, and a new epithelium lines the cul-de-sac. The action of the nervous system on secretion is by no means briefly given, though the subject is dealt with under the heads of the several secretions. He regards the statements of Pflüger in respect to the termination of the nerves in the cells as still doubtful.

Under the head of Speculum drawings of a great variety of specula are given, several of which, if a paragraph in one of the daily papers be true, were in use in Pompeii two thousand years ago. A very useless woodcut is given, intended to show the mode in which the speculum should be introduced. The patient is here shown lying on the back. The speculum can be introduced just as readily, and much more decently, with the patient lying on one side. A drawing is also given showing how a silver spoon may be attached to a wax candle, and made to serve very well instead of a reflector.

The article Sphygmograph, written by Brouardel, who has devoted much attention to it, and made it the subject of his thesis when taking his degree, gives a full account of the method of employing the instrument, and many tracings or, as he terms them, sphygmograms.

Under the head of "Sommeil" not only are the physiological characters and conditions of sleep given, with the views of Durham, Hammond, and Sansom on the causes of sleep, but an interesting section is appended upon lethargy, sleeping sickness, or Nelavan, the disease first clearly defined by Winterbottom in 1819, and observed by him in the slaves of the Bay of Benin. Of late years it has been noticed by many authors, but it is curious that it should have been so long undescribed. It is a malady chiefly affecting the inhabitants of the Western Coast of Africa, but has also been seen at Martinique and at Guadeloupe. The affection is preceded by general lassitude, by irregular appetite, and by irregularity of pulse. The patient becomes unable to raise his lids, and sleep seizes on the whole man. Strong stimuli are required to awaken him; hunger and thirst are unnoticed; and after a sleep of two or three days consecutively sleep deepens into death, the change occurring so gradually as to render it impossible to fix the moment of dissolution. The general physique of the body is well maintained. After death, the chief pathological change observed is congestion of the meninges. The cephalo-rachidian fluid is often increased in quantity. No treatment seems to be of service.

On the Treatment of Wounds and Fractures. Clinical Lectures. By SAMPSON GAMGEE, F.R.S.E., Consulting Surgeon to the Queen's Hospital, Birmingham, &c. &c. With 24 Engravings on Wood. Second Edition. London: J. and A. Churchill. 1883.

IN this single volume Mr. Gamgee has consolidated his two former well-known treatises on the treatment of wounds and on fractures. The lectures have been in great part rewritten, and the teaching shows considerable development in practical detail as the result of ten and five years' patient labour. Mr. Gamgee is an author who always well repays study; in addition to the stores of a large personal experience, he is able to draw from the published teachings of continental *confrères*, and still more happily from the classical writings of the fathers of surgery. The lesson implied by the title of this work, and effectively taught in its pages, that wounds and fractures are precisely similar in their nature, tendencies, and modes of healing, and that the principles of treatment for both are alike, is one that Mr. Gamgee has done good service in bringing forcibly before his readers. The terms in common use applied to the healing of wounds in soft parts are so different from those used in the union of fractures, that it is easy to overlook the essential oneness of the two processes, and yet the study of each throws great light on the other. Mr. Gamgee's chief aim has apparently been to bring out clearly what he conceives to be the *principles* of wound treatment, and while he shows by ample illustrations from his practice his own way of carrying out these principles, his readers are left at liberty to apply them in any way they think fit. These principles are immobilisation, compression, dry and infrequent dressings; accessories being drainage, antiseptics, and position. It is impossible to read the facts related without being impressed with the value of the line of practice inculcated when carried out with discretion, skill, and confidence. The most striking part of Mr. Gamgee's book is that in which he explains the mode of action of properly applied compression, and illustrates its value by the recital of numerous cases in point. There can be no doubt that this is a powerful weapon in the surgeon's hand, which for the most part is far too little used. It is to be noted, also, that the dressing materials that Mr. Gamgee uses, his dextrinised millboard splints, and absorbent cotton tissue, are most excellent means by which compression and immobilisation can be secured. We have not space to refer to the cases by which Mr. Gamgee illustrates his teaching; they are numerous, to the point, and well told. Among the most interesting are those in the chapter devoted to Head Injuries. But as they are all subsidiary to the great purpose in view of enforcing surgical principles, they must be read in their place to be appreciated. We may add that the volume closes with plain directions for the application of immovable splints of all kinds.

OUR LIBRARY TABLE.

Student's Guide to the Examination of the Pulse and the Use of the Sphygmograph. By BYROM BRAMWELL, M.D., F.R.C.P. Edin. Second Edition. Edinburgh: Maclachlan and Stewart.—The author of this *brochure* has not only supplied a distinct want, but has done his work in a manner which will make it very acceptable to clinical students; for although no text-book on medicine fails to say something about the sphygmograph, the *rationale* of its employment is never very fully, and seldom very clearly, explained, and consequently vague ideas both as to its value and its indications are commonly current. Dr. Bramwell seems to possess the power of clear definition, and certainly is an adept at clear and systematic exposition. After a description of the instruments of Marey, Mahomed, and Dudgeon, and rules as to their application, he gives a full and careful analysis of a sphygmographic tracing, discusses the condition of dicrotism, and deals in turn with the frequency, rhythm, and tension of the pulse. No student who works with the sphygmograph with this book before him but will derive much serviceable knowledge. The domain of the instrument may be overrated, but there can be no doubt that it often gives very useful indications when properly applied.

On the Relation of the Chest-movements to Prognosis in Lung Disease. By ARTHUR RANSOME, M.D., M.A. Cantab., Lecturer on Public Health in the Owens College, Manchester. London: Macmillan. 1882.—In this volume Dr. Ransome has incorporated the observations which he communicated to the Medico-Chirurgical Society in 1881 with those in his work on Stethometry, and has reviewed their bearing on prognosis by the aid of his more recent experience. The mobility of the walls of the thorax and comparative measurements of the chest at rest have at all times been considered most important in forming an opinion of the extent of any chronic lung mischief and the probable duration of the disease. It is so very difficult to come to

any definite conclusion in these cases that any additional help is eagerly welcomed by the physician. Dr. Ransome's researches give us the first really scientific data on which stethometry as a practical guide can be said to rest, and, although we are inclined to think that he somewhat overestimates its importance, we are none the less obliged to him for presenting us with a most valuable and suggestive book.

How to Examine the Chest. By SAMUEL WEST, M.D.Oxon., M.R.C.P., Physician to the City of London Hospital for Diseases of the Chest, Victoria-park; Medical Tutor and Medical Registrar at St. Bartholomew's Hospital; and Assistant Physician to the Royal Free Hospital. London: J. & A. Churchill. 1883.—This student's guide may be of use to the beginner in examining a chest, but beyond this it can be of but little service. It deals with the lungs, the heart, and the parts in the mediastinum; but it is far from exhaustive, whether we regard the topographical anatomy, the physical signs, or their explanation and significance in thoracic diseases. We can quite understand that, aided by demonstrations on patients, a course based on a work like this has been of great value to students before they have undertaken clinical work in the medical wards. The illustrations are sufficiently good, but the information, although correct enough so far as it goes, is so very elementary that it leaves but little ground for criticism.

The Students' Manual of Venereal Diseases. Being a concise description of those affections and of their treatment. By BERKELEY HILL, Surgeon to University College and the Lock Hospitals; and ARTHUR COOPER, late House-Surgeon to the Lock Hospital. Third Edition. London: Smith, Elder, and Co. 1883.—The title of this little book exactly expresses, not only the aim of the authors, but the result of their attempt to achieve it. It is a capital book, and one that students will find very useful while they are attending surgical out-patient practice; and practitioners will find it a thoroughly trustworthy source from which to rapidly refresh their memory on the practical points of diagnosis and treatment of venereal diseases.

The Bristol Medico-Chirurgical Journal. Edited by J. GREIG SMITH, M.A., F.R.S.E. Vol. I., No. 1. July, 1883. Bristol: J. W. Arrowsmith. London: J. and A. Churchill.—We gladly welcome this, the latest addition to medical periodical literature, which is published under the auspices of the Bristol Medico-Chirurgical Society. The interesting subject of the contagiousness of phthisis is discussed in two papers, one by Dr. Shingleton Smith, in which he adduces proofs of the existence of a phthisical contagion, the other by Dr. Markham Skerritt, taking opposite ground and giving clinical evidence against the contagiousness of phthisis. We have referred to these papers more in detail elsewhere. Mr. Munro Smith draws attention to the employment of the cardiograph in medicine, giving several tracings from cases of heart disease, and some surgical out-patient notes by Mr. W. H. Harsant conclude the original papers. Several pages are devoted to clinical records of well-selected cases. Dr. Long Fox contributes notes of two cases of compression of the spinal cord by sarcomatous growths from the soft membranes; Mr. Shaw one of ulcerative endocarditis of the tricuspid valve; and the Editor, a case of gastrostomy for malignant stricture of the œsophagus. Several other cases are recorded. The journal is completed by sections devoted to notes on books and to "Medical Extracts," the first of these latter being a quotation from the historical essay of Mr. Chas. Bernard on the case of Mr. Hobson, relieved of a renal calculus by Marchetti. The editor must be congratulated upon having produced so readable a number for his first issue. The type and illustrations are also to be commended; and we trust that these efforts will meet with the success they deserve.

Journal of Mental Science. July, 1883. London: J. and A. Churchill.—Dr. John Cleland writes in the current number on the seat of consciousness. No doubt the subject forms, and has ever formed, a highly interesting intellectual exercise; but if anyone chooses to maintain that the question resolves itself into one of verbal quibbling, we do not think he would have the worst of the argument. Dr. Cleland does not fall in with Ferrier's views on the matter. Dr. Bevan Lewis publishes the results of some experiments on caffeine in its relationships to animal heat and as contrasted with alcohol. He concludes that whilst both caffeine and alcohol alike increase to a great extent the normal heat formation, they differ in the very important feature that alcohol, by an excessive and prolonged discharge of heat, greatly lowers the body temperature, whilst, on the other hand, caffeine tends rapidly to reinstate the norma of temperature by retention. The remainder of the original articles deal almost exclusively with subjects most allied to alienism. We regret not to be able to find space for mentioning any of these more particularly.

Histological Labels.—Mr. Lewis of Gower-street has issued a sheet of labels for microscopical preparations, sufficient for the naming of a very complete series of histological subjects. The idea is a good one, and will be appreciated by all histologists who aim at neatness and order in specimen mounting.

THE INDIAN MEDICAL SERVICE.

To the Editor of THE LANCET.

SIR,—It is impossible for anyone acquainted with the circumstances of the case to deny the truth of the statements contained in THE LANCET of June 30th in reference to the Indian Medical Service. The discontent and prevailing dissatisfaction with the existing state of things are so marked and so universally felt, that my only wonder is how any young medical man of really good professional attainments and fair social position can for a moment dream of entering the Medical Service of the Indian army. There is absolutely nothing to be gained by it, excepting a very moderate income sufficient to keep a man in fair comfort so long as he remains unmarried, but the moment he marries he will find the strictest economy necessary to avoid getting hopelessly into debt; and the strictest economy in India means doing without many things which may be considered superfluous luxuries in this country, but in the tropics are absolute necessaries of life. In the old days, the superiority of the Indian over the British Medical Service was mainly due to the funds which provided an annuity, in addition to his pension, for the retired medical officer, besides a liberal allowance to his widow and children in the event of his death. These funds being now abolished, the British Medical Department is in all respects the more advantageous of the two, and a young medical man desirous of entering the public service will make a grave mistake if he joins the Indian army. When I first joined the Indian Medical Service, nearly twenty-five years ago, there were in my Presidency thirteen administrative medical appointments to which the executive officers might expect promotion as their turn came round. There are now only five, or, including the Sanitary Commissioner, six. Yet in the House of Commons last night Mr. Cross, in reply to Mr. Gibson's questions on the subject, boldly stated that no reduction of any consequence had taken place in the numbers of the administrative appointments, and that therefore the prospects of the Indian medical officers as regards promotion had not seriously suffered. This is the invariable result when any question affecting the Medical Services is asked in the House of Commons. A wholly inaccurate, if not a deliberately untruthful, reply is elicited from the responsible official, and then the uninteresting subject is allowed to drop.

I am, Sir, yours truly,

July 3rd, 1883. A RETIRED BRIGADE SURGEON.

BY the will of the late Sir Philip Rose the Brompton Consumption Hospital becomes entitled to £100.

THE LANCET.

LONDON: SATURDAY, JULY 14, 1883.

WHATEVER of surprise and unexpectedness there may have been in the result of the voting at the election at the Royal College of Surgeons last week, its substantial justice cannot fairly be impugned. Though the antecedent improbabilities were very great that two surgeons belonging to the same hospital would be elected, yet it may now be conceded that neither Mr. SYDNEY JONES nor Sir WILLIAM MAC CORMAC was without considerable claims. Mr. JONES enjoys a high reputation as a practical surgeon, not only in his own school, but throughout the profession generally; while Sir WILLIAM MAC CORMAC, by his vigorous vindication on Lord MORLEY'S Committee of the Army Medical Department in the recent Egyptian campaign, had established some right to the favourable consideration of the Fellows. It would probably be correct to say that Mr. SYDNEY JONES was elected chiefly through the St. Thomas's interest; whereas the support given to Sir WILLIAM MAC CORMAC, though numerically weaker, was of a more general character. Mr. COOPER FORSTER'S re-election was in accord with general anticipation.

The most remarkable event, however, was the utter failure that attended the two provincial candidates. Notwithstanding the fact that the number of provincial Fellows who recorded their votes was unusually large, the votes polled by Mr. OLIVER PEMBERTON and Mr. REGINALD HARRISON were few. Considering the protestations and excitement preceding the election, it might have been expected that at least one of these would have been elected, and that by a considerable majority.

While the result of the election may be allowed to pass unchallenged, it would not be right to grant the same grace to the mode in which the candidature and the actual polling were conducted. Previous to the day of election an organised system of canvassing was carried on, not only by some of the candidates themselves, but also by means of regular committees. All the usual electioneering tactics were adopted to attract notice and to catch votes, though it is some satisfaction to find that some of the more impudent attempts recoiled injuriously upon the perpetrators. A seat in the Council of the College of Surgeons should be an honourable distinction conferred by the favour of the Fellows, not unblushingly solicited by pretentious personal appeals. The prospect is a melancholy one if a candidate cannot hope to be successful at the College elections unless he blows his own trumpet, and calls upon his friends to join in the chorus. There are some who believe that both Mr. LAWSON and Mr. DURHAM might have taken higher places had they been less scrupulous about soliciting support.

One circumstance appertaining to the recent election needs only to be mentioned in order to be condemned by all right-minded men. It will be remembered that at the last meeting of the Council, on the motion of Mr. CADGE, it was resolved to appoint a committee to consider the expediency of allowing the Fellows to vote at the election of the Council either in person or by voting paper. Concurrently with this motion, but in reality quite independent of it, a section of the Fellows residing in the provinces endeavoured to ascertain by letter the views of the various candidates on exclusive personal voting. Most of the candidates returned answers favouring an alteration in the Charter to allow of voting by voting-papers, one or two merely acknowledged the receipt of the letter, while one wrote and afterwards published an answer which was distinguished by smartness rather than by good taste. It is a notorious fact that many of those who do not wish to see any change in the existing arrangements allowed their votes to be influenced by the answers that had been returned. Some Fellows, while resenting the action of their provincial brethren in attempting to find out the opinions of the candidates on compulsory personal voting, did not themselves scruple to make personal inquiries of the candidates, and to bestow their votes in accordance with the tenour of the answers they managed to extort. This is surely a species of intolerance unworthy of a constituency composed of presumably honourable and enlightened men.

IT is very gratifying to find that the Government adheres to its determination to proceed with the Medical Bill. Any other course would have been unworthy of it, considering the suspense in which the present situation keeps two thousand medical students and all the bodies concerned in medical education and in the testing of it; and it would have been inconsistent with that hearty appreciation of the Bill expressed by Mr. GLADSTONE a few weeks ago. We are well aware that the session is far advanced. That is to be regretted, but is not a reason for not doing the session's work before the session is over. All parties that have at heart the credit of Parliament as an instrument for business should make an effort, and even a sacrifice, to carry Bills reasonably within the approval of the House. It is not only medical education and the medical profession which would suffer by the miscarriage of the Government Bill, but the House itself would suffer in reputation, and be judged as very inefficient in leaving undone what everybody sees ought to be done, and what has been in hand for eleven or twelve years. Such resolution on the part of the Government throws a double responsibility on all persons interested in medical reform, and, let us add, on all persons opposed to it. There are, of course, persons who would not be sorry to see the Medical Bill miscarry. The established order of things, however unjust, inefficient, or even scandalous it may be, is precious to those who enjoy privileges under it, and seems so perfect to them that any disturbance of it is contemplated with horror. Nineteen examining bodies, bogus fellowships, unequal examinations, ineffective medical schools, are all more tolerable to such minds than a measure which would reform them all, or whose tendency would be to do so. Then there are others who are real medical reformers, but who cannot accept any Medical Bill which does not come up to their own ideal. If Parliament had twice the time for Medical Bills which it has, such reformers would be reasonable in asking for a dozen amendments of the existing measure. But to battle for an ideal is to risk the Bill; and we appeal confidently to all reformers to content themselves with reducing amendments

to a minimum, and, if they cannot get three-thirds of all they want, to be contented with two-thirds. The other third may be added easily another time. Let us take the one long step forward which this Bill enables us to take. It provides an examination—a one portal—in each division of the kingdom for all students; an examination guaranteed by all the corporations and universities in that division, and sanctioned by the Medical and the Privy Councils. It concedes the principle of direct representation. It improves the Medical Council and elevates its functions by making them more authoritative and responsible. It increases the sanctity of medical titles. A Bill that contains all these points is worth having, and we urge upon all our readers to induce their representatives to discourage all opposition to it, and to give it every support.

A GREAT deal has been said and written of late on the subject of "overwork," more particularly in connexion with education. It is time that this question received the full elucidation it requires. It is natural that such a term as "overwork" should come into use, and that it should be popularly applied to all forms or classes of injury sustained by the organ of mind in the course of exercise, whether in result of excess or misdirection of activity; but it must be obvious to everyone possessed of even the most rudimentary acquaintance with physiology that the indiscriminate use made of this term is erroneous and misleading, and that the very hypothesis of *overwork* is in itself open to serious question, and what seem to be grave objections.

Let us recall to recollection for a moment what takes place in the case of muscular tissue under ordinary conditions of exercise, when intentionally developed by exercise, and when overstrained by excessive exertion, or, in other words, "overworked." Moderate exercise, as we know, simply consumes the force generated, or, in more technical language, converts potential into kinetic energy. There is just as much material recuperation as will suffice to replace the elements utilised. Pushed a little beyond this, as in "training" judiciously conducted, muscular tissue is first incited to a gradual increase in the amount of work it performs, with the effect of stimulating the recuperative faculty to a little more than merely compensatory energy, so that there is enough feeding to suffice for *growth* as well as *restitution*, and the muscle increases in bulk. This is not, as we know, due to any augmentation in the number of the elements composing the tissue, but to their increased development. They are not more numerous, but they are larger. In point of fact, the fibres attain greater bulk in consequence of the increased stimulation and the larger amount of food assimilated by the tissue, the supply of nutrient fluid, i.e., blood, being augmented quite as much by the local demand for food as by any other condition which may be supposed to determine a special flow of blood to the part. If muscular exercise be increased too rapidly, faster than the rate of growth of the tissue, or if it be increased after the tissue has attained the full limits of a normal growth—which growth, it will be remembered, is simply compensatory to the work done, as in hypertrophy of the left ventricle of the heart,—there will be exhaustion: that is to say, an uncompensated consumption of tissue and, if the work be further increased, exhaustion may proceed so far as to enfeeble the faculty of recuperation, itself, to such an extent that it will no longer even replace normal waste. The stress of the work falls on the nerve-centres, which of course are the sources of energy, but it seems probable that the terminal plates in the muscular tissue, which are probably reservoirs of nerve-force kept charged—as Leyden jars may be charged with electricity—for the purpose of local or reflex activities, may themselves be specially exhausted and rendered incapable of normal action, so that "cramps," stiffness—which is *rigor*, doubtless due to commencing coagulation of the myosin,—and local pain or tenderness, often accompanied by fibrillar pains and twitchings, due to local excitations, will ensue. At the same time the nervous system of the muscular apparatus being exhausted, the vaso-motor function is impaired, the arterioles of the part affected lose their tone, and the flow of blood through the region is retarded in speed, accumulation takes place, and what may be called atonic or passive hyperæmia occurs, followed, it may be, by the phenomena of incipient inflammation; or if there be not enough of energy for that active state, then passive congestion, transudation, swelling, and œdema will supervene. This is a hasty and very general summary of what takes place, or may occur, in muscular tissue, when it is "overworked." Probably an analogous state of affairs supervenes in the case of nerve-tissue, and notably of the brain, when unduly exercised. There is, however, this essential difference between brain and muscle—namely, that inasmuch as the former is the more delicately organised, and in a sense the most important—albeit it seems likely that nerve-tissue may be developed while muscular cannot be—it is specially protected, so that before "overwork" does serious mischief in the case of nerve-tissue, there are nearly always very distinct indications that the limits of healthy activity have been reached. Under only moderate exercise nerve-tissue does not, as a rule, develop rapidly, nor does it accumulate strength—that is, force held in reserve and available for action. If the brain is to grow—that is to say, grow complex structurally—it must feed freely, consuming more than sufficient to replace its waste. If it is to feed, it must *work*. There is no way of stimulating the *structural* growth of brain except by intellectual exercise. This is a point of fundamental importance, and it is of cardinal moment in regard to that form of development by training which we call "education." So true, so inexorable, is this law, that not even *general* stimulation by work will suffice. If any special faculty of what we call "mind"—that is, brain function—is to be cultivated, it must be called out by special training—namely, by work of the special nature it is desired to elicit. For example, there is no reason to suppose the faculty of learning languages can be developed by exercise in mathematics, or the converse. This is a matter not sufficiently well recognised. A "strong mind" *is* a well-grown brain, and "bias of mind" is a brain with some one or more of its parts specially developed. Of course heredity has much to do with the question of capability of development, because the young animal is produced "in the likeness" of its parent; but so far as we, as educators, are concerned, our training must be special if we desire to get special results. In the process of brain-growth, or, more accurately speaking, of brain-development, the elements of which the organ is composed

are exposed to precisely the same risks and contingencies as the elements of muscular tissue under varying degrees of pressure by work, and, *mutatis mutandis*, the physiological, running into pathological, effects of progressive increase of work are similar to those we have attempted to recall. The faculty of recuperation is in danger of being itself exhausted, and depression of nerve force and atonic congestion supervene. A matter of moment to remember is that although the brain is structurally a packing together of centres, with afferent, efferent, and inter-communicating nerve-fibres, it is itself supplied with nerves, and subject to precisely the same conditions of coarse disturbance as other organs. Sometimes we forget this fact, as at others we forget, not so much that it is an organ, as that it is composed of nervous tissue.

The conclusions we deduce from these facts are as follows: "Overwork," properly so called, is not so likely to occur, or if it occur to do mischief, as irregular or disorderly activity. If there be not sufficient time for recuperation in the course of work, exhaustion must take place. If the work done be of such a nature as to put an undue strain on any one faculty, harm may be done, although the brain as a whole may not be severely taxed. If the supply of brain-food be insufficient to enable the recuperative faculty to compensate by food for consumption in use, there must be exhaustion. If work be exacted when any indication of exhaustion is present, it is impossible that injury shall not be inflicted. It follows that educators have especial need of care to avoid engaging the brains of their pupils in work for more than very short periods, and to provide intervals during which there may be rest of the centres specially taxed. Much may be done by changing the kind of work frequently. We are of opinion that no growing child should be kept longer than half or at most three-quarters of an hour at one task, or even the same description of work. Again, the great centres of relation should not be overtaxed. Vision, hearing, the speech centre, and the centre specially concerned with written language, whether in writing or reading, should not be wearied. Brain weariness is the first indication of exhaustion. The faculty of "attention" is perhaps one of the most easily vulnerable of all the parts or properties of brain-function. It is the faculty which most readily becomes permanently enfeebled, and when weakened entails most trouble in adult life. In children it is difficult to catch and fix the attention. No effort should be spared to secure this fixity of thought; but in order to avoid weakening the power of "thinking"—as distinguished from "thought-drifting"—the teacher should not strive, or desire, to hold the attention by any effort on *his* part longer than it is voluntarily given by the child. The slightest indication of exhaustion should at once be met by a change of task. If these hints, general as they are, can be reduced to practice, we think there is little fear of "overwork" or harm from brain activity. Desultory and insufficient work is more to be feared by far than "overwork," because the brain, like every other part of the organism, grows as it feeds, and it can only feed as it works.

IT has long been a disputed question whether the fine articles of fat, which it is admitted on all hands are absorbed from the small intestine, enter the lacteals through the columnar cells which cover the villi or through minute channels left between these columnar cells; and various modes of preparation have been appealed to as affording the means of settling the question. ZAWARYKIN, the well-known professor of physiology in St. Petersburg, has just advanced another view in the last part of PFLÜGER'S *Archiv*, which he supports by strong evidence, to the effect that the lymph cells of the adenoid substance of the villi are the active agents in taking up the fat molecules from the intestine and transmitting them to the lacteals. In his experiments he has employed dogs, rabbits, and white rats, the plan adopted being to remove the intestines a few hours after a meal, and to treat them with osmic acid, and then to act upon them with picrocarmin, remove the water with alcohol, render transparent with clove oil, and finally mount in Canada balsam. In preparations thus made he states that lymph cells charged with fat may be seen in the layer of columnar epithelial cells, in the adenoid substance of the villi, and in other layers of the intestinal wall. Ordinary lymph cells thus treated exhibit nearly homogeneous protoplasm, which is of a greenish colour; but those that are impregnated with fat present a mist of black molecules, which are not always evenly distributed through the mass, and cannot therefore be mistaken for the ordinary granulations of the protoplasm. The fat-containing lymph cells may be found in all zones of the columnar epithelium from the basal border to the subepithelial layer of endothelium, and they may even be seen to project beyond the basal striated border. The form of these cells varies considerably, suggesting that they are performing lively amœboid movements when suddenly attacked and rendered immobile by the osmic acid. In some instances they present long processes, usually directed towards the basal border, and often containing fat molecules. The presence of such a long process, extending from a lymph cell lying near the attached extremity of the columnar cells to the basal border of the epithelium, and charged with fat molecules, would explain the views of those who consider that the fat molecules enter the intestinal wall between the columnar cells. ZAWARYKIN is of opinion that his preparations tend to show that there is a constant movement in two directions of the lymph corpuscles, those that are destitute of fat pressing towards the free surface of the mucous membrane and of the villi, whilst others charged with fat are moving in the opposite direction. The further transposition of the fat molecules is, he believes, in part into the central cavity of the villi, and in part along the adenoid tissue of the rest of the intestine. In both cases, however, they soon enter the plexiform chyle vessels, which are situated at the base of the follicles of Lieberkühn. A point of importance which he has noted is that the white corpuscles contained in the blood of the veins and arteries are also charged with fat molecules, but he is not prepared to state precisely how they obtain their fat. The follicles of Peyer's patches appear to be especially active in effecting the resorption of fat, as may be well seen in the case of rabbits. The fat may be seen in larger or smaller masses, composed of molecules and larger particles in the follicle itself, occupying both its peripheral and its more central part. The cells are particularly large in the portion of the intestinal coat which lies over a Peyer's patch; the leucocytes charged with fat here assume an almost colossal size, sometimes lying in rows parallel to the long

diameter of the columnar cells, in others forming nests. The memoir is accompanied by some well-executed drawings by RAJEWSKY, which render the descriptions given by ZAWARYKIN very intelligible.

Annotations.

"Ne quid nimis."

THE PROFESSORSHIP OF PATHOLOGY AT CAMBRIDGE.

BY the recent statutes of the University of Cambridge a Professorship of Pathology was instituted, with a stipend of £800 a year, irrespective of fees. The professor is not to be allowed to undertake the private practice of medicine or surgery, and he is to be appointed as soon as sufficient funds for the purpose can be conveniently provided from the common University fund or from other sources. The General Board of Studies, with whom, under the new statutes, the initiative rests, in their report upon the studies and requirements of the University, lately issued, have expressed the opinion that the appointment of the professor should take place about Lady Day next. The Board, by whom the appointment will be made, has been already constituted, and consists of the Vice-Chancellor, Professors Paget, Humphry, Latham, Michael Foster, Sir James Paget, Dr. Gaskell, Dr. J. F. Payne, and Professor J. Burdon Sanderson. There is at present no special laboratory for the professor, but that will no doubt ere long be provided. The professorship, like most of the other Cambridge professorships, is open to all persons, whether members of the University or not; and there can be little doubt that a position highly desirable in several respects will have many aspirants. Though debarred from private practice, the professor will be able to hold a hospital appointment; and a connexion with Addenbrooke's Hospital would greatly increase his opportunities of usefulness, and tend to give a practical turn to his investigations and to his teaching.

THE GOVERNMENT AND THE CONTAGIOUS DISEASES ACTS.

ON the 5th inst., the Marquis of Hartington, Sir Wm. Harcourt, and Sir A. Hayter brought in the Government Bill, providing for the detention in certain hospitals, certified by the Admiralty or the Secretary of State for War, of persons affected with venereal disease, including gonorrhœa. It also repeals the Contagious Diseases Acts, 1866 to 1869. The second reading was down for the 11th inst., but the press of other business prevented its being brought forward. We regret this the more as Captain Price, the member for Devonport, had given notice that it was not expedient to repeal Acts which had proved of great value to the health and morality of the public; and in this way the question might have been to some extent rediscussed. The Government measure—Detention in Hospitals Act, 1883—is so crude and ill-considered, and is such a lame makeshift for the former Acts, that we can scarcely believe that it is intended for serious legislation. Compulsory examination has disappeared in accordance with Mr. Stansfeld's resolution, and in its place we find that any woman who has voluntarily come into a certified hospital for cure can be detained until the chief medical officer certifies that she is in a fit condition to be discharged. A voluntary patient can thus be compulsorily detained at the discretion of the chief medical officer. Do the authorities believe that the patient will, under these circumstances, apply for admission before she is so ill that she can no longer pursue her avocation? Can anyone possibly estimate the amount of venereal disease that will be scattered abroad if such an unfortunate enactment be legalised? Compulsory detention is absolutely impossible when patients are asked to come voluntarily to a hospital. If a patient voluntarily presents herself at a hospital she must be free to leave whenever she chooses. Another clause, which will be viewed with considerable astonishment by both magistrates and doctors, provides that a woman who considers herself entitled to be discharged, but is detained by the doctor, shall have a right of appeal to a justice, who will order her discharge if he is satisfied, upon reasonable evidence, that she is free from a contagious disease. If the Contagious Diseases Acts are to be repealed, let them be repealed *in toto*, and the results will, in our opinion, lead in a very few years to their being re-imposed and extended. No one conversant with venereal diseases, and their symptoms and spread, can seriously entertain the propositions of the Government. We cannot believe that there will be any real endeavour to pass them, and we can hardly understand authorities who doubt their efficiency being responsible for their publication.

THE PROGRESS OF CHOLERA.

SINCE the beginning of the fourth week in June, when cholera was first announced to be prevalent at Damietta, the disease rapidly acquired epidemic proportions both in that town, at Mansourah, and at Samanoud, besides appearing either continuously but to a less extent in other towns, such as Cherbine, or, again, in isolated groups or in single sporadic attacks at other places. Damietta has hitherto borne the brunt of the epidemic, and some 15,000 deaths have occurred from cholera in that one town. Nearly 400 deaths have taken place in Mansourah, where the disease is now on the increase, whereas at Damietta some considerable diminution in the daily number of fatal cases has at last occurred. So far the disease has been entirely limited to the Delta of the Nile, and, with the exception of an outbreak at Menzaleh, it has confined itself to towns situated along the lines of railway; in other words, its operations have been almost exclusively manifested along the main channels of human intercourse. Quarantine measures have been adopted in most European countries; but our Government have wisely decided to trust to the system of dealing with the sick and with infected things, and to leave the healthy at liberty. The effects of quarantine, as rigidly carried out, are already manifest in all their cruelty at Mansourah, where the suspension of all intercourse with the outside world prevents any food supplies from being taken in, and so this town, with its population of 16,000 souls, is hemmed in by bayonets to contract cholera or die of starvation. But whilst discarding this barbarous and antiquated system, our Government has decided to take all such precautions as are necessary for the protection of this country. The present order relating to the importation of cholera and similar foreign diseases is to be strengthened and re-issued. A Departmental Committee is to be appointed to sit in London under the orders of the President of the Local Government Board, and a physician connected with the India Office is to proceed to Egypt with a view of maintaining efficient relations with the home Government. Our Port Sanitary Authorities have had full warning as to their responsibilities. The distance between Egypt and our shores will go far to prevent any unexpected occurrences of cholera in ships not already obviously infected at the time of their arrival, and we may fairly hope that even if cholera should be imported the arrangements which are now, or will shortly be, in operation in our several port districts will amply suffice for such work of isolation and disinfection as will be necessary to prevent further extension of the disease.

PROFESSOR HUXLEY.

THE election of Professor Huxley as President of the Royal Society will meet with general approval. No ordinary man can aspire to fill the place which has been occupied by so many brilliant predecessors, and much is expected of him who is the chosen representative of English science. The requirements of the office are numerous: he who holds it must be thoroughly versed in at least one branch of human knowledge, and be regarded by those who are most familiar with it as its most brilliant exponent. But he must be something more than this, and be capable of recognising and appreciating the value of other lines of thought and research than those at which he has worked. Lastly, he must be fitted to conduct the business relations of a large and rich society. No one combines these qualifications for the office more perfectly than Professor Huxley. He has been an energetic and steady worker, and is the unrivalled head of biological science in this country. He may be ranked next to Darwin himself as the ablest exponent of the doctrines of evolution, which have had so powerful an influence on every department of knowledge. He is a subtle dialectician, and as a man of wide and liberal education may be depended on to promote the cause of science by every legitimate means.

THE CONTAGIOUSNESS OF PHTHISIS.

THE revival of an old belief, especially when this is due to the discovery of some new fact that apparently supports it, is no new thing in history; and in medicine particularly we find the ideas discarded by one generation reverted to by the next. The doctrine of the contagiousness of phthisis has been held by some from the very dawn of medicine, has been a matter of popular faith in many countries, and yet has been grounded on no substantial basis. To those who wish to learn how the doctrine is supported at the present time we may refer to the opening article in the new Bristol Medico-Chirurgical Journal, by Dr. Shingleton Smith, who begins his thesis with the propositions advanced by Dr. Budd sixteen years ago in support of the view that phthisis is contagious. The arguments employed by Dr. Budd then are much the same as those in vogue at present, with, however, some notable additions from recent pathological research—the similarity of the pathology of tuberculosis to that of zymotic diseases, the evidence of actual communicablity of phthisis, the geographical distribution of the disease and its introduction by Europeans into countries hitherto free from it, its prevalence in low levels and amongst crowded communities—conditions also favouring the spread of zymotic disease generally. To these and like arguments must now be added the knowledge gained of the infectivity of tubercular material within the body, the inoculability of the disease in the lower animals, and, lastly, the crowning discovery of Koch as to the presence of bacilli in the tubercular deposits and ejecta. All these and many collateral points are dealt with by Dr. Shingleton Smith, who also gives the result of his own examination of sputa for bacilli. The arguments in favour of the zymotic nature of tubercle—i.e., of phthisis—are given here plainly and fully, and the reader must weigh them for himself. He will, however, be considerably assisted in his analysis if he first peruses the next article in the journal, in which Dr. Markham Skerritt writes with precisely the opposite tendency to Dr. Smith, and adduces clinical evidence against the contagiousness of phthisis. On his view the bacillus may only be a concomitant (or a result?), but not necessarily a cause of tuberculosis, whilst, further, inferences from the experimental inoculation of animals may be pushed too far. The body of his paper is occupied, in the first place, with the evidence adduced in support of the contagion theory, and he shows how readily this may be exaggerated, particularly the evidence of transmission through marriage; then comes the formidable array of facts against the theory of contagion afforded by the hospitals for consumption, and the slight liability to the disease amongst those who wait on patients. Dr. Skerritt shows that the necessity for assuming a special predisposition to tubercle places it in a different category from other contagious diseases, and, indeed, differentiates the human disease from that produced experimentally in animals. The appearance of these articles is timely; and although neither writer would perhaps claim that finality has been reached in this question, their readers will see how different the same thing looks when regarded from two opposite standpoints.

GENERALISED SARCOMATOUS TUMOURS OF THE SKIN CURED BY SUBCUTANEOUS INJECTIONS OF ARSENIC.

IN the *Berlin. Klin. Wochenschrift*, 1883, No. 2, the history of a very remarkable case which came before the Medical Society of Berlin is reported. Professor H. Köbner showed to the Society a girl, aged eight years and a half, who had been the subject of an immense number of sarcomatous tumours that had developed in the corium of almost the whole body. The development of these tumours was rapid. Between July 9th and September 12th, 1881, Professor Köbner found that they had greatly increased in number as well as size. The tumours varied in size from that of a lentil to that of a haricot bean, were hard, not tender on pressure, and bluish-red in colour. About 318 tumours were counted, the nose and abdomen being the only parts of the body on which none were present. The diagnosis was made in the first instance on clinical grounds alone, but was confirmed by histological examination of two of the growths which were excised. Remarkable as the case is in itself it is none the less so by the results of treatment. Under the influence of subcutaneous injections of Fowler's solution the tumours were gradually absorbed, leaving behind at first brown, slightly scaly patches, and finally, even these evidences of their existence disappeared. In using Fowler's solution for subcutaneous injection, Professor Köbner (who first employed his method successfully in the treatment of lichen ruber), dilutes it by the addition of two parts of distilled water. In the case of the girl to which we have referred the dose employed at first was two and a half to four drops once daily, after three months the dose being raised to seven and a half and then to nine drops. When the patient was shown the favourable condition had been maintained for a year.

PUBLIC HEALTH (DAIRIES) BILL.

WE have of late years had abundant evidence that several of the acute infectious diseases can be conveyed to man in the milk which he takes as food, and in 1878 an effort was made to reduce the probability of this occurrence by empowering certain local authorities to make and enforce regulations for the improvement of dairies, cowsheds, and milkshops. For some reason, which is not very obvious, the local authorities upon whom this duty was imposed were not those concerned in preventing disease amongst human beings, but those who were responsible for the protection of the health of cattle. The result has not been satisfactory, for, although the local authorities had the option of appointing as their officers gentlemen who might be entrusted with duties of this nature, in many instances the local policeman was alone concerned in carrying out the Act. In London, with the exception of the City, the Metropolitan Board of Works became responsible for the prevention of disease caused by infected milk—a body who have not even the aid of a medical officer to advise them on a subject which needs

at every point to be considered in the light of the best medical knowledge which can be obtained. An important change is about to be made by the Public Health (Dairies) Bill. This Bill, which is intended to make further provision for the regulation of dairies, cowsheds, and milkshops, has now been read a third time in the House of Lords, and, inasmuch as it is as yet unopposed, might pass almost unnoticed through the House of Commons and become law. The intention of the Bill is to transfer the duties of inspecting cowsheds and milkshops, and of making and enforcing such regulations as are deemed desirable for the prevention of infection of milk, from the local authorities under the Contagious Diseases (Animals) Act of 1878 to the local sanitary authorities. Unfortunately, however, the benefits which must undoubtedly result from this transfer of authority will not be shared by the metropolis. For some incomprehensible reason, the Metropolitan Board of Works, whose other duties relate rather to dealing with bricks and mortar than with flesh and blood, is still to remain the local authority for preventing the spread of disease caused in this manner. This is a subject which concerns the welfare of the metropolis so closely that it is well that public attention should be directed to it. We understand the Society of Medical Officers of Health is stirring in the matter, but obviously no time must be lost.

THE DURHAM UNIVERSITY.

If the energy of the northern university of England is to be judged from the annual meetings of its associations, it must be considered to be in a very healthy and hopeful state. The dinner of the associations, with the Rev. Canon Waite, D.D., in the chair, and Dr. Philipson, D.C.L., in the vice-chair, was a brilliant affair, whether we regard the number of distinguished guests, or of graduates of the university present, or the display of taste and learning by the professors and associates of the university. Canon Waite's eloquence was nearly perfect, and had one good defect with which the otherwise finished speeches of Lord Ravensworth, Canon Evans, Mr. Plunket, &c., could not be charged—it wanted length. We have long seen the promise of good work and an important future in the University of Durham, in connexion with its Newcastle Colleges. The meeting of Wednesday confirms us in this impression. The company included, besides those mentioned, the Bishop of Aberdeen, Bishop Claughton, Sir John Mowbray, Sir George Elliott, Bart., M.P., Sir Farrer Herschell, Mr. Beresford Hope, Rev. Dr. Hornby, D.D. (Master of Eton), Sir Watt Reed, K.C.B., M.D., Mr. Christopher Heath, Dr. Broadbent, Dr. Glover, Dr. Armstrong, Dr. Oliver, Dr. Samuel Fenwick, Dr. Bedford Fenwick, Dr. Pyle, Dr. Crichton Browne, Dr. Wilson, &c.

THE USE OF THYMOL AND SUBLIMATE IN EMBALMING.

We have received a short paper on the above subject by Dr. J. Polak, of Warsaw, who, during the past winter, has been engaged in making experiments in the anatomical school upon the best methods of preserving bodies. An injection of a solution of thymol in glycerine and water was advocated by Virodtsef in 1876, and it was with the view of comparing this method with that adopted by Chaussier—viz., sublimate—that Dr. Polak instituted his research. He found that thymol, like sublimate, when used in a sufficiently concentrated form, arrests decomposition of the whole body by simple injection of the fluid through the carotid or femoral artery, the corresponding vein being opened. But he also found that even an advanced state of decomposition of the limbs was arrested, and the signs of such decomposition disappeared under the use of injections of sublimate, especially if only spirit and glycerine and no water were used. The skin became mummified and of a dark-brown colour, and the muscles acquired the appearance of smoked ham under either method, and neither heat nor damp had any deteriorating effect. But a much smaller quantity of the sublimate injection than of the thymol was needed to produce these results. Moreover, the colour of the skin was longer preserved, and the comparative cheapness of sublimate renders it, perhaps, preferable. Dr. Polak points out that the injecting syringes should be of glass, owing to the action of sublimate on copper. For ordinary anatomical purposes an aqueous solution—1 in 300 or 1 in 500—is amply sufficient, and is better than chloride of zinc.

WHOOPING-COUGH IN SCHOOLS.

It is a sign of the increased attention paid to sanitary and hygienic matters generally that the managers of our educational institutions are awakening to a sense of their responsibility as to the means best adapted to guard against the introduction and spread of epidemic disease in their establishments. Until quite recently there was a kind of fatuous belief that epidemics must occur from time to time as a matter of course, and be patiently endured. But nothing is more erroneous or opposed to the teaching of sanitary science. To obviate the occurrence of an outbreak, what is needed is vigilance to prevent its entrance and prompt recognition of the disease when by accident it has made its appearance, so that it may at once be completely and efficiently isolated—in fact, the establishment of effective and systematic medical supervision. The methods by which complete isolation can be secured are by no means a matter of difficulty with schools, especially those that have no day boarders. On the occurrence of an epidemic in a town all communication with the townspeople should cease, the boys be confined to the school-grounds, the washing be done on the school premises, and by persons whose families are known to be free from the disease. A watchful eye must be kept on the health of the inmates of the baker's shop and also of the school dairy. Instead of going on Sundays to the parish church, services ought to be held in the school-room. If a boy complain of even the slightest malaise he should be at once separated from his companions till seen by the doctor, and in case the disease prove of an infectious nature he should be promptly removed to the sanatorium. In schools where arrangements of this kind are complete, serious outbreaks are rare. At Marlborough, where some years ago outbreaks of scarlet fever were of frequent occurrence, since the inauguration of a system of medical supervision the disease has been kept in almost total abeyance. At Winchester, where the means of isolation are very complete, our Commissioner on the Public Schools, 1875, reported that "in the last ten years there have been only two deaths from zymotic disease in the whole school, and no outbreak of scarlet fever has occurred now for some years." What has been effected at these large schools can be as readily carried out in smaller establishments. The frequent breaking up of schools on account of epidemics is a reproach on their management, and is an evidence that the proprietors do not avail themselves of the means sanitary science has placed at their disposal for dealing with these diseases at the very outset. With regard to the spread of whooping-cough, about which our opinion has now been asked, we can only say that the very best results are to be obtained by rigorous exclusion of the boys from the town and the frequent inspection of them by the school doctor, in order to detect the first symptoms of disease and thus secure early isolation. These precautions should be continued so long as the disease is prevalent in the neighbourhood. We are pleased to see that the Council of the Parkes Museum have recognised the importance of the subject of school hygiene by devoting a lecture to its

special consideration, an abstract of which appears in our columns this week. Among the many subjects touched upon by the lecturer none is of more importance than the considerations for preventing the occurrence of epidemics in our educational establishments, and it is one that for years we have specially insisted on.

THE OPHTHALMOLOGICAL SOCIETY.

THE Annual General Meeting of the Ophthalmological Society was held on the 6th inst. in the new rooms of the Medical Society. Numerous communications were made, and the ballot for officers and council for the year 1883–84 took place, when the following were duly elected:—President: Mr. Jonathan Hutchinson. Vice-Presidents: Mr. William Bowman, Dr. C. E. Fitzgerald (Dublin), Mr. Henry Power, Mr. Frederick Mason (Bath), Mr. Augustin Prichard (Clifton), Mr. J. C. Wordsworth. Treasurer: Mr. J. F. Streatfeild. Secretaries: Dr. John Abercrombie, Dr. W. A. Brailey. Other Members of Council: Dr. Edwyn Andrew (Shrewsbury), Mr. George Cowell, Mr. G. A. Critchett, Mr. R. Marcus Gunn, Dr. George Johnson, Mr. George Lawson, Dr. Stephen Mackenzie, Mr. Charles Macnamara, Mr. E. Nettleship, Mr. Priestley Smith (Birmingham), Mr. T. Shadford Walker (Liverpool), Mr. W. Spencer Watson. The President made a few remarks upon the work of the past year—the third session of the Society—and pointed out the satisfactory condition in which it was placed. Twenty-two new members had been enrolled during the year—fourteen metropolitan, three colonial, and five non-metropolitan. Death had deprived the Society of two of its members—Mr. G. Critchett and Mr. R. W. Lyell. The total number now on the list was 176. At the close of the meeting Mr. Brudenell Carter proposed, on behalf of the Society, a vote of thanks to Mr. Bowman for his services as President during the three years. The vote was carried by acclamation and acknowledged by Mr. Bowman in a brief speech, in which he contrasted the state of ophthalmology when he first devoted himself to it with its present condition, and considered the formation of that Society would do much to advance its progress.

UNCERTIFIED DEATHS IN SCOTLAND.

THE letter of Dr. Russell and the Lord Advocate's reply to Dr. Cameron's question have assisted materially in eliciting the truth with regard to uncertified deaths in Scotland, but it will be seen that in no respect has our statement (June 23rd) been shaken; and it has yet to be shown why such a large residuum of uncertified deaths exists, even at the end of months, and why there should be such a striking difference in the various towns. The system which gives but 0·88 per cent. at Aberdeen should be capable of better things in Edinburgh and Glasgow, where 23·36 and 20·36 per cent. are uncertified at the end of the week. In formerly adverting to this subject we fully admitted that many cases uncertified at the end of the week were afterwards satisfactorily accounted for; hence it is but an illustration of a familiar expedient when it is pointed out that less than 20·0 per cent. of the deaths are ultimately certified. It appears that all the laudable and rather exceptional efforts made in Glasgow cannot avail to reduce the numbers which remain uncertified under 9 per cent.—a proportion exceeding that found at the end of the week in Aberdeen, and almost four times the percentage uncertified in the principal towns of England. Even if we allow 9 instead of 20 per cent. to be ultimately uncertified, and this is a mere guess, it is evident how unreliable must be the returns of the Registrar-General, and how favourable the whole system is to criminal courses, whilst the necessity for improvement becomes most clear. We still hold that, whether by the grumbling admitted by the Lord Advocate, but probably by a much more direct method, the Procurators-Fiscal persistently discountenance post-mortem examinations; and we have the direct proof on the subject. The wholesome influence of subsequent inquiry is thus lost to the miserable class upon whom suspicion should rest in all cases unattended by medical men; and a wider limit to the public prosecutors is the first step necessary to reform. If, as Dr. Russell states, these inquiries lead to a suspicion of crime, the suggestion made by Dr. Maclagan in our issue to-day, that all uncertified deaths should be immediately reported to the medical officer of health to be investigated by him, is one deserving of favourable consideration in Scotland. It was probably Edinburgh to which the Lord Advocate referred in stating that numerous cases are attended by medical students; but while fully recognising the necessity of giving clinical work to students, such work can only be properly carried out under duly qualified men, who should in all cases place themselves in a position to certify. Out-door advice is abundant enough at our hospitals and dispensaries, but there is little provision for attending the poor at their own homes, and it is this want which tells so seriously on the registrars returns. In no way could money be more profitably expended than in tiding the poor over a period of illness in their own homes, and, whether by charity or an appeal to the rates, means should be found for securing the services of a well-qualified man in every case of serious illness. The dislike to appeal for parochial aid is a feeling which should be encouraged, but provision should be made that the more independent amongst the poor should not suffer for their virtues. It is satisfactory to hear that the want of definite information in the Registrar General's returns with regard to these uncertified deaths will soon be met by the Scottish department, and we trust this much needed change will be made in each division of the kingdom, and so as to embrace every parish within its borders.

EARLY SYPHILITIC ARTERITIS.

AT a meeting of the Pathological Society of London, held on January 16th, 1883, Dr. Sharkey showed microscopical specimens of syphilitic disease of the cerebral arteries. These sections were taken from a patient who had died within seven months of the date of infection. Dr. Sharkey expressed the opinion that such early involvement of the vessels in syphilis was not very rare. It is the ordinary belief that lesion of the cerebral arteries is rather a late manifestation of syphilis. In the current numbers of *La France Médicale* the clinical history and post-mortem appearances of a case are recorded which, if the interpretation given by M. Geffrier be correct, would afford a fresh proof of the notion that such arterial changes may be of early occurrence. The patient was a man, aged forty-two years, who contracted syphilis in October, 1882, and was repeatedly under medical treatment from November till March, 1883, when he died. The primary chancre on the lip healed and the roseola disappeared under treatment, but the headache proved obstinate. At the autopsy the basilar artery was found thickened and filled with thrombus; disease also existed at the middle cerebral arteries and in the adjacent portions of the anterior cerebral and posterior communicating branches of the circle of Willis. Histological examination revealed the signs of inflammation in all the coats of the affected arteries, but the distribution and arrangement differed at different parts. Woodcuts illustrating the microscopical details are appended to the paper referred to. Seeing that the patient was repeatedly under medical supervision during the short term of his illness, the reflection is forced upon us whether our present remedies can safely be regarded as sufficient to meet the dangers entailed by the syphilitic lesions of the vascular system.

SCHOOLS AND SCARLET FEVER.

THE Government have recently done their utmost to stay that special spread of infectious disease which has been brought about by the aggregation of children in elementary schools under our present system of compulsory school attendance; and in the recent Code issued by the Education Department they have sought to devise means by which the communication between children from infected houses and those from hitherto healthy dwellings should be prevented. The Sheffield School Board have, according to the local press, and in a most unexpected way, set themselves to work so as utterly to undo any advantage which might otherwise follow on the detention of the sick at their own homes, for, with scarlet fever widely prevalent, they literally send young children from school to the houses of the absentees to ascertain the cause of absence, and when Dr. Hime calls their attention to the fact that the practice is highly calculated to favour the spread of infection, the Board consider that his interference is uncalled for, and the chairman himself regrets the issue of "alarmist reports." The practice is the more inexcusable because it is known that scarlet fever is epidemic in Sheffield, and that children at the school age who are sent on this treacherous mission are of all others the most liable to contract the disease. In the five weeks ending June 30th last, as many as fifty-five deaths from scarlet fever were recorded in the borough, and this doubtless represents at least five hundred attacks. It has often been suggested that elementary courses on health questions should form a part of the instruction given in our schools. The need for some such action in Sheffield is clear: it would show parents why they should forbid their children to comply with the dangerous and quite unwarrantable instructions of their teachers, and if the members of the School Board could be required to attend at least one course, they might acquire knowledge which would ever after prevent them from permitting such a practice as the one on which we have felt it our duty to comment.

THE COVENTRY PROVIDENT DISPENSARY.

WE are constantly asked for rules and guidance in the matter of provident dispensaries. The best reply we can make is to refer inquirers to certain institutions of the sort, and amongst these two stand out pre-eminent, Coventry and Northampton. One indispensable thing in a well-ordered provident dispensary is to have a good honorary secretary, who has both influence and independence, and who has at heart the interests of the working classes as well as of the medical profession. Both at Coventry and Northampton this factor in the success of the provident dispensary is very noticeable. The fifty-second annual report of the dispensary is now before us, and includes a tribute, reluctantly accepted, to Mr. Dresser, the honorary secretary, for thirty years' faithful service to the dispensary. The annual meeting was presided over by Mr. H. W. Eaton, M.P., and there was an unusually large attendance. The report was very satisfactory. The estimated number of members is 15,000. One sentence in the report says, "The number of new members admitted during the year is 2338, clearly showing that the additional surgeon elected last year is in every way a gain to the institute." The payments of members of the club are £1478, the club payments £352. The Free Fund—that is, the money raised by the working classes—is £1964 10*s.* 4*d.* Of this over £1200 has been divided among four medical officers. More than two-thirds of the midwifery is done by the midwife at 7*s.* 6*d.* a case. If members wish for the attendance of one of the medical officers in their confinement, they can have it by the previous deposit of a guinea fee. From the Free Fund £794 15*s.* is carried to the Honorary Fund, out of which the drug bill (£418 4*s.* 8*d.*) is paid. Here is an institution giving members a choice of medical men established in the town; paying the medical men fairly, though by no means too much, for sound work, and this on reasonable and moderate terms as regards the workmen themselves. We commend the Coventry Institution to some would-be reformers of Provident dispensaries.

RISKS OF PRACTICE

MEDICAL MEN are always liable to have their actions misconstrued, but it has been reserved for these latter days to see a father suing two doctors because they trusted to the parental instinct too implicitly. For only last week a jury was engaged in the Queen's Bench Division upon a case in which this state of affairs was literally true, and yet the jury could come to no agreement. The plaintiff in the action was a manufacturing chemist, and his son took ill with diphtheria, for which tracheotomy was performed by one of the two medical men in charge, and against whom this action has been raised. The operation necessitated the immediate freeing of the trachea from materials occluding it, and the father was directed to suck the tube, which he did twice. The onset of the disease had been so sudden that it was legitimate for the surgeon to think the case one of inflammatory croup and not diphtheria. Two or three days after the operation the child died, and the father fell ill from diphtheria. His accusation was that he had not been warned that the disease was diphtheria, and he had not been directed to use any antiseptic gargles after sucking the tube. But it was clearly proved that there was no absolute indication of diphtheria in the child's throat until the day after the operation; and, even if there had been, what could have been more natural than that a father should have lent his aid in saving the life of his child? Moreover, it could not be actually proved that the parent had been so inoculated, since he was living under the same conditions as the child who was attacked first with the disease. Two things are clear—the doctors were quite justified in appealing to the father to come to the aid of his child; and, secondly, they were not at the time in a position to judge of the infective character of the disease so as to warn the parent of a possible risk to himself in doing what was in truth his duty.

CERTIFICATION OF CAUSES OF DEATH.

THE serious depreciation of the value of the Registrar-General's mortality statistics, resulting from the imperfections and vagueness of certificates of the causes of death, is dealt with in considerable detail in the forty-fourth Annual Report just issued. The statistics of puerperal mortality appear to suffer in an exceptional degree. We are told that 1200 letters of inquiry were addressed to certifying medical practitioners with reference to certificates, the vagueness of which rendered the satisfactory classification of the assigned causes of death an impossibility. Of these 1200 inquiries, 504 related to deaths of which the assigned causes were peritonitis, septicæmia, pyæmia, or blood-poisoning. The result of these inquiries was to add no fewer than 330 deaths to the record of puerperal mortality during the year—that is, 269 to the heading "puerperal fever," and 61 to "accidents of childbirth." A table in the report shows that, during 1881, 4227 deaths were referred to childbirth and puerperal fever, an increase of 735 upon the number returned in 1880; nearly half this apparent increase was directly due to the result of these inquiries, and it is impossible to estimate what proportion of the other half may have been indirectly due to the same cause. The book of forms for medical certificates contains a list of suggestions to medical practitioners as to the manner of certifying fatal

disease, one of which runs as follows:—"Whenever childbirth has occurred within one month before death this fact should invariably be certified, even though it may be believed that childbirth had no connexion with the cause of death." It would appear that this suggestion escaped the notice of a large proportion of certifying practitioners. It must be evident that trustworthy statistics of puerperal mortality are impossible unless this suggestion is loyally accepted and acted upon by medical practitioners. To a less extent the mortality statistics of other diseases are vitiated by similar imperfections of certificates—a state of things which is easily comprehended when we are told that the assigned causes of death are frequently so indefinite as "dropsy," "blood disease," "seizure," "hæmorrhage," "tabes," "tumour," &c. Bearing in mind the scientific value of trustworthy mortality statistics, and the expenditure of public time and money upon their compilation, it is impossible to doubt that the Registrar-General's appeal for increased accuracy in the materials with which he is called upon to deal will receive a satisfactory reply.

TYPHUS AT LIVERPOOL.

AS yet typhus has shown no signs of diminution in Liverpool. According to the weekly returns of the Registrar-General, no distinction is drawn between the various forms of continued fever, but the fever deaths, which in the five weeks ending May 26th numbered 49, amount again to 42 for the same number of weeks ending June 30th, and, according to a statement made at the last meeting of the Toxteth-park guardians, the disease was spreading to districts hitherto free from infection. Some sort of arrangement has been entered into between the guardians and the corporation with regard to the isolation of the sick—an arrangement which will apparently involve the pauperisation of all who are compelled to accept it. This result is the more unfortunate because it is alleged that "in most cases" the fever does not exist amongst persons in receipt of relief. We trust, however, that the scheme is merely a provisional one, and that in view of the fact that Liverpool now contains numerous centres of typhus infection, which will probably constitute a far greater source of danger to the population as winter advances than they do now, the corporation will, in their capacity as a sanitary authority, lose no time in securing the protection of public health by the provision of such means of isolation as will not involve the disgrace and disabilities which attach to the use of an establishment under Poor-law authority.

CRUELTY TO ANIMALS.

THE Royal Society for the Prevention of Cruelty to Animals is doing excellent work, and when we contrast the state of matters in the streets now with that which even middle-aged men must remember in relation to the treatment of the dumb part of the creation, it is impossible not to feel thankful for the improvement which has been effected. One excellent feature of the work done by the Royal Society has hitherto been its freedom from "fads." The enterprise has been catholic, and it has not lent itself to private or clique influences. The medical profession will not yield place to any other profession or class of the community in its abhorrence of cruelty. It may, indeed, claim to have done more than many, if not most, other sections for the amelioration of the condition of the brute world. Those who characterise medical men as devoid of humanity, or addicted to cruel practices, because they have recourse to vivisection for scientific purposes, are either ignorant of, or wilfully distort, the facts. We heartily wish the Society success, and offer our congratulations on the highly successful meeting at which Her Royal Highness the Duchess of Connaught recently presided.

LONDON WATER.

IN their annual report for the year 1882 on the composition and quality of the water supplied to London during that period, Messrs. Crookes, Odling, and Tidy give a summary and review of the analyses of the 2110 samples of water collected by them in 1882 from the mains of the seven London Companies taking their supply from the Thames and the Lea. Referring to the clearness of the water-supply, it is stated that of the specimens examined 40 were very slightly turbid, 10 slightly turbid, and 1 turbid, leaving 2059 samples entirely free (so far as unaided vision could determine) from suspended matters. Discussing the question of the wholesomeness or unwholesomeness of Thames water for drinking purposes by reason of its amount of organic impurity, attention is called to the fact that the years in which the metropolitan rate of mortality is exceptionally high are those in which the proportion of organic impurity in the water is relatively low; while the years in which the metropolitan rate of mortality is exceptionally low are the years in which the proportion of organic impurity in the water is relatively high—not, of course, because the organic constituent of river water is any more wholesome in the one case than it is prejudicial in the other, but most probably because the climatic conditions of the year which affected the rate of mortality in one way affected the proportion of organic matter in an opposite way.

URBAN DIARRHŒA MORTALITY.

THE records of mortality from epidemic cholera in various Eastern localities invest with more than the usual interest the weekly records of diarrhœa fatality in our large towns. The deaths attributed to diarrhœa and dysentery in the twenty-eight large English towns dealt with in the Registrar-General's Weekly Return, which had slowly but steadily increased from 28 in the third week of May to 124 in the last week of June, further rose to 249 in the first week of July. These deaths were equal to an annual rate of 1·68 per 1000 of the estimated population. Of these 249 diarrhœa deaths, 167 were recorded in London, and only 82 in the twenty-seven provincial towns, which have an aggregate population exceeding that of London. The annual death-rate from diarrhœa, which did not average more than 0·92 per 1000 in the provincial towns, was equal to 2·20 in London. This excess of the rate of diarrhœa fatality in London at the beginning of the season for fatal diarrhœa is in accordance with the recorded experience of recent summers. Among the provincial towns the highest recorded death-rates from diarrhœa last week were 2·0 in Portsmouth and 2·1 both in Nottingham and in Preston. The unsatisfactory condition of the rivers flowing through many of the Lancashire and Yorkshire towns, arising from increasing organic pollution, is giving rise to natural and grave anxiety at the present time.

"EXTRA SERVICES" UNDER THE POOR-LAW.

IF guardians will not pay the fees due either to their own medical officers, or to other practitioners, for extra services rendered to the sick poor at the instance of relieving officers or overseers, they must be prepared to find that medical men refuse attendance. Of course if there be no "order," the medical man has not a legal claim, but there would seem to be a tendency, in some quarters at least, to trick him by an appeal to his humanity for prompt aid in emergencies, his chance of being paid resting either on an "understanding" or a "promise," which is repudiated when the time comes to discharge the obligation incurred or supposed to be incurred. We think medical men owe it to themselves to be careful how they submit to be "taken in"—we can use no less offensive term—in this way. If a practitioner chooses to be benevolent that is his affair, but he should not

allow himself to be cheated by those who count on his charity while they do not scruple to abuse his confidence.

THE HEALTH OF THE QUEEN.

THERE are many absurd exaggerations abroad as to the health of Her Majesty, which would make her the victim of the most various and undesirable maladies. Perhaps the best answer to such statements is that of silence and time. But lest this slow method of contradiction should occasion uneasiness to the millions of the Queen's subjects, we take pleasure in giving a flat and absolute contradiction to these rumours, and in saying that there is really nothing in Her Majesty's condition to create the slightest alarm or anxiety.

RABIES AND ITS PARASITE.

THE mode of inoculation adopted by M. Paul Gibier consisted in drilling a small orifice through the median line in the frontal region of the skull of dogs, mice, and rats. This hole sufficed for the introduction of a needle, through which the virus could be syringed into the arachnoid cavity. From his experiments, M. Gibier supported the view that rabies can be transmitted to the fœtus from the mother (rabbits). Cold was found to be an effectual attenuant of many viri, including that of rabies. Microparasitic organisms were detected in the cerebro-spinal fluid, as well as in the cerebral substance, notably the medulla oblongata. These consist of minute mobile granules, often arranged two by two and joined by a delicate filament. Sometimes a single granule was seen alone, and possessing a thin cilium; these were no doubt due to rupture of the bilateral figure, and resembled a nail in shape. The size of these elements, which could not be discovered in healthy animals placed under similar conditions, was about one-twentieth of that of a red blood-disc.

THE CASE OF WALTER GUY.

OUR readers will remember the chief points in the case of Walter Guy, of the telegraph department of the Post Office, who alleged that he was induced by some men, supposed to be Fenians, to follow them into a court, where he was blindfolded and detained and kept without food. Finally he was dropped out of a cart somewhere near Kingsland, and on his return home he was dumb for several days. Mr. De Berdt Hovell of Clapton took great interest in the case, and entirely credited both the tale and the dumbness of Walter Guy. Dr. Langdon Down also regarded the case without suspicion. Unfortunately for Walter Guy, he does not seem to have been judged by doctors on medical grounds, and the authorities of the Post Office have discharged him. His narrative may be admitted to be unlikely, but that fact cuts two ways, and it is to be remembered many unlikely things have happened lately. We think it a pity, considering the medical evidence in his favour, that he has not had the benefit of any doubt attaching to his story.

EPIDEMIC DIARRHŒA.

THE medical officer of health for the city of Winchester relates in his annual report the result of some investigations which, at the request of Dr. Ballard, he has made into the question as to whether the infantile diarrhœa of the hot weather is or is not dependent upon local conditions of soil-wetness. He states that, in so far as Winchester is concerned, the disease has chiefly appeared in the low and damp portions of the city, but having regard to the influence of mills upon the level of the subsoil water, and to the fact that the deep water is so entirely regulated by the height of the water in the river as to be much at the same level wherever found, he arrives at the conclusion that no connexion is at present apparent between the occurrences of this disease and any alterations in the level either of the subsoil water or of the deep water.

METROPOLITAN HOSPITAL SUNDAY FUND.

THE sum received at the Mansion House on behalf of the Hospital Sunday Fund amounted, up to Thursday evening last, to £32,650.

A PUBLIC inquiry relative to the application of the Hendon Local Board for sanction to borrow £62,000 for works of sewerage and sewage disposal was held at Hendon on the 7th inst. by an inspector from the Local Government Board. The area which will be drained by the proposed scheme is 8332 acres, and includes the whole of the parish of Hendon, which is almost the largest in the county of Middlesex. The project provides for the treatment of the sewage at one outfall, which is situated on the banks of the river Brent, near Golder's Green. After being treated chemically, the sewage will pass overland to be further purified, and will then pass into the stream, by which means it is hoped to avoid all nuisance arising. After going over the district, the inspector adjourned the inquiry.

THE appointment of Dr. Reginald Southey to the Commissionership in Lunacy, vacant by the retirement of Dr. Nairne, will give general satisfaction. It will be remembered that Dr. Nairne was himself a non-specialist physician, and at the time of his appointment there was an understanding that in future one physician, who had *not* held office in an asylum, should have a place on the Board. Dr. Reginald Southey must be regarded as representing the interests and influence of the profession as a whole, as distinguished from that of the specialty. It is, therefore, no slight to any member of the specialty that a non-specialist has been appointed.

AT the late conversazione of the Royal Society and of the Royal College of Physicians were two paintings by Dr. C. J. B. Williams, F.R.S., made in Cannes last year. (1) In oils: Comet of 1882, Oct. 21st and Nov. 21st; the first brilliant, with a shadow beyond the tail, which has not before been noticed. (2) In water colours: Telescopic View of the Transit of Venus at Sunset over the Esterel Mountains. We understand that Dr. Williams will shortly publish two volumes of works and memoirs, with illustrations from his own pencil.

THE following telegram, dated July 11th, appeared in *The Times* of Thursday:—"M. Pasteur having offered to organise a mission for investigating the cholera in Egypt, the Hygiene Commission has endorsed the scheme. The mission will consist of M. Roux and M. Thuillier, of M. Pasteur's laboratory; M. Strauss, of the Faculty of Medicine; and M. Nolaco. M. Pasteur has written to Lord Granville to solicit the grant of facilities to the mission in Egypt."

IN New York the variations of temperature within the last fortnight have been remarkable, the thermometer falling in a few hours from 100° in the shade to 65°. The heat has been very fatal to children, and several cases of sunstroke in adults have been reported.

WE understand, so large has been the demand in America and in England for Dr. Klein's work, "The Elements of Histology," that the first edition issued a few weeks since has been exhausted, and Messrs. Cassell and Company have already in preparation the second edition.

IN connexion with the discussion on the Burgh Police and Health (Scotland) Bill, a synopsis of which appeared in our columns on Feb. 24th last, the *Scotsman* of July 6th has some very pertinent remarks on the question of notification of infectious diseases. The article, which is well reasoned, and evidently written by one who is well acquainted with the lights and shades of the subject, accords with the views we have expressed on the matter.

MR. GEORGE FLEMING, LL.D., President of the Royal College of Veterinary Surgeons, has been appointed by H.R.H. the Field Marshal Commanding-in-Chief Principal Veterinary Surgeon to the Army. This appointment has, we believe, been made without respect to seniority, and in recognition of the distinction achieved by Mr. Fleming in veterinary science.

A DRAWING-ROOM meeting, in furtherance of the interests of the Dalrymple Inebriate Home, is announced to be held at the residence of the President, Lord Shaftesbury, 24, Grosvenor-square, on the 16th inst.

DR. THEOPHILUS PARVIN, of Indianopolis, has been elected to the Chair of Obstetrics and Diseases of Women and Children in the Jefferson Medical College, Philadelphia, in the vacancy caused by the resignation of Prof. Wallace.

HER MAJESTY has signified her intention of conferring the honour of knighthood on Mr. Edwin Saunders, F.R.C.S. Eng., F.G.S., of George-street, Hanover-square.

HOSPITAL ADMINISTRATION.

No. VIII.

THE CONFERENCE.

IN the last number of THE LANCET an account was given of the proceedings at the Hospital Conference, which was attended by medical and lay representatives of hospitals from all parts of the United Kingdom. It was an open question whether this meeting of hospital managers would be a success, and many believed that, from the very diverse opinions held by various hospital committees, little harmony could be reasonably expected. The result has shown that there is a consensus of opinion on many important questions, and that those who take the most active interest in the management of hospitals are anxious to bring about some organisation which shall lead to combined action and mutual instruction. This unanimity may be attributed in some measure to the fact that, whereas many hospitals sent representatives to the Conference, most of those institutions which were not represented are the ones the management of which has been most severely criticised.

There were three questions which were fully discussed at the Conference—(1) The art of management and the financial difficulties of the metropolitan hospitals as contrasted with the comparative prosperity of those in other parts of the United Kingdom; (2) the support of hospitals by the working classes; (3) the necessity for a Royal Commission of Inquiry The views held on these subjects by the hospital authorities may be profitably recorded, but we must reserve our remarks on the last two questions until another occasion.

HOSPITAL EXPENDITURE AND INCOME.

It was contended by Messrs. Blair and Hordley in their papers that by localising the work of a hospital, not only will the income be increased but the expenditure will be diminished. Their experience had been gained at Leeds and in North Staffordshire, where the people are thrifty and independent. They held the view that no system of hospital management was satisfactory which did not individualise the relief afforded, and the responsibility of contributing towards the expense of rendering medical service. This system resulted in the great towns outside the metropolis in securing that by far the larger proportion of the hospital income was derived from annual contributions. H.R.H. the Prince of Wales recently said, with truth: "Annual subscriptions are, after all, the true test of a charity's repute." The table here given, however, proves that his Royal Highness was wrong in his belief that "annual subscriptions are withheld or given according to the value of the work done," or why do the best managed hospitals in London receive so little from this source? Thus the amount received in each year in annual subscriptions ranged from £2000 a year at the smallest to £10,800 at the largest provincial hospitals, being equal to about 60 per cent. of the whole income, whereas at the London Hospital only £2405, or less than 6 per cent., is received from the same source. It was forcibly urged that a large annual subscription list was a guarantee of good management, because it represents very many hundreds of active supporters, some of whom are certain to keep a watchful eye upon the action of the committees. When nearly the whole income is derived from endowments, legacies, and similar sources, this wholesome criticism is absent, the management often falls into the hands of a very few, and the expenditure is in consequence greater than it ought to be. With the view of ascertaining how far these arguments apply to the metropolitan hospitals, we have carefully examined their published accounts and reports, and have embodied the results arrived at for the sake of brevity in the table on the opposite page.

It will be observed that the year 1873, being the year in which Hospital Sunday was established in the metropolis, has been selected for comparison with 1881. In the year 1873, out of every £100 expended by the London hospitals the women's hospitals spent £16 10*s.* on management, and each in-patient cost £9; the special hospitals, £15 and £5 respectively; the chest hospitals, £10 12*s.* and £14; the lying-in hospitals, £9 and £4; the children's, £8 16*s.* and £10 8*s.*; and the general hospitals, £7 18*s.* and £4 16*s.* respectively. In other words, a donor of £100 to one of the large general hospitals relieved probably two in-patients at least more than he would have done had he sent his donation to one of the special hospitals. Unfortunately this fact is evidently not realised by the people who support our hospitals, as it will be seen that the general hospitals received out of every £100 of their income but £46 10*s.* from voluntary subscriptions in 1873, whereas the women's hospitals received upwards of £70, the special hospitals £69, and the children's nearly £79 from this source. Nor has any improvement taken place during the last nine years, for whereas in 1881 the children's hospitals had increased the income they derive from voluntary subscriptions to upwards of £82 out of every £100, and the women's to £81 14*s.*, this source of income had fallen off at the general hospitals by 4·2 per cent., so that they only receive rather more than £42 out of every £100 at the present time from voluntary sources. Now, anyone studying the table must be struck with the fact that during the nine years under consideration the expenditure on management at the special hospitals has increased from 15 to nearly 17½ per cent., whereas that at the general hospitals has remained almost stationary. In considering this fact it must be remembered that management includes the salaries of the office staff—i.e., secretary, clerks, and collectors—printing, postage, advertising, and all similar expenditure, so that where the management expenses have increased, the percentage of income derived from voluntary sources ought to have increased also. How badly the special hospitals are managed, and how wasteful it is to give to them is proved by a reference to the table, from which it appears that although

the expenses of management increased at the special hospitals between 1873 and 1881 by 2½ per cent., the amount of income received from voluntary sources fell from £69 out of every £100 to £46 10s., or by no less than 22½ per cent. When the actual facts are considered it is fair therefore to say that the management expenses of the special hospitals have increased in reality in nine years by nearly 150 per cent., instead of only 2½ per cent., as shown on the face of the table. Again, an increase in the expenses of management does not necessarily afford any just ground for criticism. Thus, although the management expenses increased 3½ per cent. at the children's hospitals the voluntary income increased to an even greater extent, and so the expenditure is more than justified. Probably the most striking and satisfactory evidence afforded by the table is the great improvement made in the management of the women's hospitals, where, although the voluntary income has increased by upwards of 11 per cent., the management expenses have been reduced by 3½ per cent. This fact gives force to the contention that no hospital, large or small, ought to spend more than 15 per cent. on management, because the women's hospitals have reduced their expenditure from 16·5 to 13·3 per cent., although they obtain upwards of 80 per cent. of their income from voluntary contributions. The managers of the metropolitan general hospitals may profitably lay these figures to heart. There is no doubt they have hitherto relied too much upon a *laisser faire* policy; have spent too little—8 per cent.—on management, and have consequently obtained only 42 per cent. of their income from voluntary sources. If they were to spend another 4 or even 2 per cent., to insist upon their secretaries actively exerting themselves, and to appoint a small but vigorous finance committee to look after these matters, we should soon cease to hear of financial difficulties. Such a scheme probably means a change in the *personnel* of the staff here and there, but such changes are desirable in the best interests of the public and the hospitals, and should not be delayed. The table presents other points of interest, notably the large increase in the amount of invested property and legacies during the past nine years at the special, lying-in, and convalescent hospitals, and the marked falling off under the same headings at the women's hospitals. Anyone who will run his finger down the columns showing the percentages which the voluntary income, endowments and legacies, and patients' payments bear to the total income at each group of hospitals, cannot fail to be startled by the evidence it affords that, whereas every group of special hospitals has prospered during the past nine years, the metropolitan general hospitals have not only not prospered, because their income from voluntary sources has fallen off, but that derived from legacies and endowments remains almost at a standstill, showing that a considerable amount of stock must have been sold to defray current expenses. Nor is this all, for not only has the amount of voluntary income fallen off at the general hospitals, but the amount of endowed and legacy income received by the special hospitals has largely increased, proving beyond dispute that at the end of the next decade, under existing circumstances, unless steps are promptly taken, there will be many fewer legacies and much diminished endowments at every metropolitan general hospital.

METROPOLITAN HOSPITAL INCOME, EXPENDITURE, AND COST OF IN- AND OUT-PATIENTS.

Number and class of hospitals.	Percentages which total management expenses bear to the total expenditure.		Percentages which the voluntary income, endowments and legacies, and patients' payments, bear to the total income for the years 1873 and 1881, compared.						Cost of each in-patient after deducting expenditure on out-patients.		Cost of each out-patient deducted.
			Voluntary income.		Endowments, legacies, &c.		Patients' payments.				
	Year.		Year.		Year.		Year.		Year.		
	1873.	1881.	1873.	1881.	1873.	1881.	1873.	1881.	1873.	1881.	
	£	£	£	£	£	£	£	£	£	£	
16 General Hospitals .	7·5	8·2	46·5	42·3	52·5	53·4	0·8	0·6	4·8	5·8	Deducting 2s. per out-patient.*
5 Chest ,, . .	10·6	8·3	73·5	56·8	24·6	39·1	1·9	4·1	14·1	18·4	,, 5s. ,,
4 Lying-in ,, . .	8·9	8·9	51·6	33·4	48·4	66·5	—	0·1	4·6	6·8	,, 15s. ,,
8 Children's ,, . .	8·8	12·1	78·7	82·3	9·4	13·0	4·9	4·7	10·4	7·3	,, 2s. ,,
5 Women's ,, . .	16·5	13·3	70·3	81·7	18·8	7·1	10·9	11·2	9·0	6·0	,, 5s. ,,
7 Convalesc. ,, . .	8·2	9·1	76·7	60·8	8·7	18·5	14·6	20·7	2·5	2·1	No out-patients.
19 Special ,, . .	14·9	17·4	68·9	46·5	25·7	42·7	5·4	10·8	4·9	5·2	Deducting 5s. per out-patient.*
3 Institutions. . . .	6·4	9·2	41·7	33·2	27·1	45·3	31·2	21·5	—	—	———
67 (Total).	9·3	9·8	57·5	50·2	38·0	43·2	3·9	4·8	—	—	———

* The amounts deducted represent about the average cost of each out-patient at the various hospitals.

PRECAUTIONS AGAINST THE IMPORTATION OF CHOLERA.

THE precautions against the importation of cholera into the Port of London depend upon the Customs and the Port Sanitary Authority. The present order in Council is dated 1873, but it is announced that a revised one will be issued in the course of a few days, though it is extremely unlikely that any fundamental changes will be made. If a vessel arrive from any port infected with cholera, or suspected, the cholera questions are put by the Customs boarding officer, and the answers thereto are signed by the master of the vessel, who is liable to very heavy penalties in the case of a false statement. Any vessel is deemed to be infected if there is or has been during the voyage, or during the stay of such ship in a foreign port in the course of such voyage, any case of cholera. If infected, the vessel is at once detained and ordered to moor or anchor, and notice thereof at once given to the Port Medical Officer. The vessel is thenceforth under the care of the Port Sanitary Authority. The Port Medical Officer will forthwith moor or anchor the vessel in a certain part of the river where moorings are set aside for that special purpose. As soon as practicable the whole crew, including passengers, will be examined by the Port Medical Officer.

All cases of cholera, or doubtful choleraic diarrhœa, will be removed to the Port Sanitary Authority's floating hospital. Those who are found to be healthy will be allowed to leave the vessel after proper fumigation of clothing, &c. As

soon as the healthy have left and the sick removed to hospital, the vessel, bedding, and cargo will be thoroughly fumigated, detention being ordered as long as necessary for this purpose. If any person affected with cholera should be too ill to be moved, the vessel will remain subject to the control of the Port Medical Officer until the death of the patient, or recovery sufficient to allow removal shall occur. The Port Sanitary Authority, in view of the possible importation of cholera, have a medical officer resident at Gravesend, and an inspector specially set apart for the purpose of boarding vessels. The hospital ship will be available for any case of cholera that may be discovered, and every possible precaution taken to prevent spread of infection, while at the same time interference with the trade of the port will be reduced to a minimum. So far as the restrictions on commerce are concerned, much will depend upon the extent to which shipowners and captains assist the authorities. Where notice is given early (before the arrival of the vessel), special arrangements will be made for boarding and clearing the vessel immediately she arrives, and thus the delay will be very greatly reduced.

THE PARKES MUSEUM.

AN audience, which entirely filled the basement of the Central Hall, listened to the lecture delivered by Mr. Rogers Field on the 5th instant. The three canons which regulate house drainage were given thus:—All refuse matter must be completely and rapidly removed. No passage of air can be allowed to take place from drains or waste-pipes into houses. No communication can be permitted to occur between the drains and the water-supply. The lecturer then proceeded to explain how the principles could be best put into practice. Drains to be self-cleansing must be laid in straight lines, must be watertight, and have a certain fall; the soundness of the pipes and joints can only be guaranteed when, the outlet being closed, the drain holds water without any leakage. Traps which allow of deposit, such as the D and dip varieties, must always be rejected. An excellent contrast was instituted between a form of the hopper closet, shown in action in the Parkes museum, and the ordinary pan closet with its container, in which filth always accumulated. Waste preventers constructed on an ingenious application of the syphon principle were considered to be the best forms for flushing waterclosets. Well-arranged coloured diagrams, with many models, served to illustrate the various details alluded to by Mr. Field. Two coloured plans were hung before the audience to illustrate and give emphasis to the states of the drainage at 74, Margaret-street, before and after the removal of the Parkes Museum there. It was shown how, in the present system, all the terminals of the different drains had been brought to one central station, at which a manhole, very easy of access, was constructed. Dr. Alfred Carpenter, the chairman, spoke of the ridicule with which his suggestions on house drainage had been greeted not twenty years ago. After the usual votes of thanks, the lecturer proceeded to give demonstrations of the sanitary appliances in action in the various parts of the building.

The eighth lecture of the series was given by Dr. C. H. Ralfe on Thursday evening, July 12th, the subject being "Hygiene in Schools." The Very Rev. the Dean of Llandaff, Master of the Temple, took the chair. The lecturer, after dwelling on the importance of the subject, pointed out that great improvements had taken place of recent years in the general management of schools, but hand in hand with these improvements other conditions had arisen which had a tendency to lower the average standard of health at our chief centres of education. Among these the introduction of the competitive system must be reckoned as the chief, which, by introducing an element of strain, anxiety, and excitement at a period when growth and development were most active, proved highly prejudicial. There were other conditions, but these and the competitive system had to be accepted, and the evils resulting from them combated by an increased care and attention to hygienic details. The lecturer then proceeded to relate the best means for the protection of the school from the ill effects of defective drainage and a dangerous water-supply. The construction of the school buildings, and the arrangement of studies and dormitories, were fully considered, together with the question of ventilation and lighting. With regard to the latter, he drew attention to Mr. Brudenell Carter's remarks regarding the prevalence of short-sightedness and other ocular defects among schoolboys, remarks, the lecturer observed, which ought to be attentively considered by all parents and teachers. The channels by which epidemic disorders were introduced into a school, and the best means of dealing with an outbreak when it occurred, were next discussed. A considerable portion of the lecture was devoted to a consideration of the vexed question of schoolboy food. The lecturer insisted it should be plain and simple in character, sufficient in quantity, excellent in quality, and adapted to the special requirements of growth and development according to the age of the boy, whilst the most minute attention should be paid to its cooking, and that it should be served hot and in a palatable and relishing form. He denounced the "sock" shops, where boys are too often allowed to purchase provisions of a very doubtful nature, and consume them at times when they destroy the natural appetite. The influence of school work and play on the boy's health and development was then discussed. Sound honest hard work the lecturer was convinced never did a healthy boy any harm, but it was the system of forcing minds at high pressure which was accountable for many lamentable break-downs. For a similar reason athletic sports, which required previous training and often a severe strain, were not advisable till the frame was set, the ordinary pastimes of cricket and football being most suitable for the growing lad. In conclusion, the lecturer insisted on the necessity of adequate medical supervision in order to carry out effectually the details requisite for the maintenance of perfect sanitary and hygienic conditions, and alluded to the excellent results that had followed on the appointment of medical officers at Rugby and Marlborough to attend to these details, and who by constantly mixing with the boys obtained an intimate acquaintance with their physical conditions, whilst the great advantage of medical supervision lay in the power of being beforehand with epidemics. In schools where it was thoroughly adopted the necessity for breaking up a school on account of scarlet fever, &c., was found to be of extremely rare occurrence.

Captain Douglas Galton will deliver the last lecture of the summer session on July 19th. The subject will be "Recent Improvements in Artificial Lighting and their Bearing on the Purity of Air in Rooms."

THE FISHERIES EXHIBITION.

THE general object of the successful exhibition of all that pertains to the important industry of fishing is one that commands the heartiest support of the medical profession. We are particularly interested in the problem of how best to feed the masses of our countrymen, and in no direction are efforts likely to be of so much avail as those which are made to turn to better account the vast amount of good food which abounds all around our coasts. Probably no one has yet an adequate conception of the plenty which is provided in our seas, and yet the benefit we derive from it is relatively very small. It is no part of our duty to point out the causes of this, but as we have often called attention to the value of fish diet, we rejoice at the present success which has attended the efforts of the promoters of this Fisheries Exhibition, and shall rejoice still more when its lasting fruits in the form of safer and more productive pursuit of fishing, with better management, shall follow, resulting in a cheap and general use of wholesome fish as food.

All visitors to the exhibition must be struck with the number of the exhibits of fish preserved in various ways; and among the others we specially noticed the excellence of the various preparations shown by Messrs. Moir and Sons, which are in great variety, and all of them tempting in appearance. Blanchflower's stall of tinned, dried, smoked, cured, and salted fish struck us as a very good one.

In connexion with the cooking of fish, we may mention

that Stevens Bros. & Co. of London show a kitchener with their patent self-acting cone ventilator, which draws away the smell from cooking fish and vegetables into the chimney, and removes the chief objection to close fire-ranges.

Among the numerous objects of interest we may mention the following as worthy of special notice. The Willesden Waterproof Paper and Canvas Company show paper, canvas, nets, ropes, clothing, &c., all treated by their waterproofing process, and, although of a suspicious green colour, yet free from arsenic. Among the apparatus for ventilating ships, Messrs. Boyle's air-pump exhaust and downcast ventilators are specially notable as thoroughly efficient. Kite's ventilators are also good. Among articles of ship furniture we observed the excellent "Excelsior" spring berths, made by Charlton and Dugdale, strong, durable, and comfortable. Messrs. Dollond & Co. have a stall with some very good specimens of their workmanship in barometers, telescopes, sextants, &c., adapted to all classes of navigators.

In division 9, devoted to life-saving apparatus of all kinds, the exhibits of Messrs. Wentworth are specially to be commended. They consist of garments and belts for men, women, and children, so constructed that the wearer cannot possibly sink, but is always held up in the water with the head well above. The garments can be made in almost any fashion, and are of course very light. They can be easily worn during boating excursions, and those specially made for bathers are well deserving of the attention of those who are about to indulge in that healthful luxury.

Mr. R. Roper shows models of ingenious methods of converting the bridge of a ship or the top of a deck-house into a self-floating raft. The exhibition of sailors' medicine chests is small; those shown by Mr. Henry and Mr. R. T. Linton are good. Mr. Linton also shows some serviceable splints.

Department 28 is devoted to antiseptics suitable for preserving fish for food; the number of exhibits is very small indeed, only seven in all, and five of these consist only of various kinds of salt for preserving. The Sanitas Company shows its special preparations, and also samples of fish successfully preserved in them. The well-known A B C process of purification of sewage is seen in actual operation in a small pavilion, and placed round the room are aquaria in which fish are living in the purified sewage water; the manure resulting from this process, and called native guano, is also shown.

There are many other exhibits of extreme scientific interest, such, for example, as the collection of objects from a prehistoric shell mound in the island of Oransay, evidently dating back to the neolithic age; fossils of extinct British fishes; insects injurious to fish, and others again forming the food of fish; and several models of salmon and oyster breeding and rearing establishments.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Bradford. — The borough of Bradford extended its boundaries during 1882, and hence the birth and death-rates for the year cannot be accurately stated. They were, however, about 31 and 21 per 1000 respectively. In connexion with the sanitary work carried on in the borough, Mr. Butterfield refers to the extended use of destructors for dealing with the refuse from ashpits, and he points out that during the past year 19,438 loads of rubbish, which otherwise would have been tipped in the borough and probably served as sites for workmen's houses, were destroyed in this way. Destructors are gradually coming more and more into use in the large centres of population, for the difficulty of disposing of the accumulated refuse has so increased that it could no longer be overcome in any other way. Bradford, however, by no means takes a lead in its system of privy scavenging. The process is carried on at night, and Mr. Butterfield speaks of this as a distinct disadvantage to the borough. Formerly it was the practice everywhere to resort to night-scavenging, and even now the same system is maintained in many parts of the country. But where modern bye-laws have been adopted a different principle has been held in view, and in the Annotated Model Bye-laws, issued by the official publishers to the Local Government Board, will be found what we may regard as the model clause relating to this subject. It is one which prohibits the process of scavenging under cover of darkness. Night scavenging means that an offensive process is to be carried out at the time when its details cannot be properly supervised, and when, in consequence, needlessly offensive operations are likely to be indulged in. Indeed, at Bradford it appears that the excreta are thrown on to the ground before being lifted into the carts, a condition of things which would never be for a moment tolerated if the process were carried out under the eye of the officials and the public. Besides which, such filthy proceedings are generally due to faulty construction of privies, both as regards capacity and otherwise, and these faults instead of coming under view remain undetected because the main evils to which they lead are hidden away under the darkness of night. Bradford has, in this respect, not profited by the example of its neighbours; its ashpit privies hold some three months' accumulation, instead of being so designed as to need that constant removal of contents which is elsewhere effected during hours of daylight without becoming a source of nuisance to the inhabitants. Probably three months of daylight scavenging in Bradford would bring all these evils to light, and produce the desired effect of securing such constructive and other arrangements as would lead to their abolition. Mr. Butterfield has now said his last word to Bradford on this point, having accepted another health appointment; we hope it will not pass unheeded. In the matter of isolation considerable success has been attained in Bradford. Thus, during 1882, all the 7 cases of small-pox and the two of typhus which occurred, together with 208 cases of scarlet fever or 51·1 of the total cases heard of, were removed to the fever hospital. The notification of infectious diseases is stated to work well and harmoniously, and although the medical practitioner's legal duty ceases when he has handed a certificate to the householder, yet, as a matter of fact, he in "the majority of cases" sends it himself to the sanitary offices. Some considerable study has been given to the question of infantile diarrhœa in the borough, and it transpires that 91 per cent. of the total deaths from this cause have occurred in back-to-back houses. These houses are precisely those which are most subjected to a stagnant atmosphere often laden with emanations from excremental and other refuse, and this consideration has probably much to do with the result attained in Bradford.

Newcastle-on-Tyne.—Mr. Henry E. Armstrong's report on the sanitary condition of this city for 1882 refers to several matters of considerable interest. A large portion of the report is devoted to the question of hospital accommodation for infectious diseases and to the recent outbreak of typhus and small-pox, which have given special prominence to the need for improved means of isolation. As regards typhus, 107 cases, including 30 deaths, and as regards small-pox, 409 cases, including 59 deaths, came under notice during the year, special facilities for hearing of cases of infectious disease being afforded, subsequent to the end of September, by reason of the compulsory system of notification which then came into operation. The amount of infectious disease to be dealt with was thus large, and it was supplemented, amongst other affections needing isolation, by as many as 440 cases of scarlet fever, 82 of which were fatal. The city has for years past had a hospital for infectious diseases, but the impetus which has recently been given to the question of isolation as a means of preventing the spread of infection has been such that an additional hospital for small-pox became necessary, and, even with this, overcrowding and an inability to receive cases became serious during the past year. The result is that an altogether new hospital is to be provided, and if we may judge by the memorandum issued to architects, it is intended to secure an institution which will fully meet the requirements of the district. The hospital will stand on ten acres of ground, a point in which it will be superior to a large number of other similar institutions. Amongst the points dealt with in connexion with the small-pox outbreak is the spread of that disease to houses in the immediate neighbourhood of the old small-pox hospital. The evidence that this did take place is somewhat striking, but in some respects the method adopted to prove it is too superficial. Thus the amount of the disease in given districts around the hospital is shown, and the cases occurring are compared with the areas included in these districts. The population of the several districts could,

however, not be procured, and in the absence of this, or of the number of houses and of the proportion attacked, nothing can be based on the information supplied. In other respects the account given of this small-pox outbreak is very exhaustive, and some interesting details are given of the protective influence of vaccination in averting the disease amongst those specially liable to contract it, as also some painful facts to show how those who persistently neglected to secure for themselves that protection fell victims to the disease. In one instance a child at the breast of a small-pox mother is alleged to have died because no vaccine could be got by a private practitioner, and hence it is urged that the sanitary authority should also be the vaccination authority so as to meet such cases. There is much to be said on behalf of the proposed change; but, assuredly, no private practitioner could allege that vaccine was not to be procured with a view of saving life that must otherwise necessarily be sacrificed so long as there is a national vaccine establishment and a penny post. That establishment may not be profuse in the amount of lymph it issues to any one individual, but, so far as we know, it never refused such a supply as was here needed, and that immediately. Besides which a public station exists in Newcastle, by the aid of which lymph could doubtless have been procured under such circumstances without difficulty. Out of a total of 229 cases of small-pox notified after the compulsory Act came into operation, 129 were removed to hospital, and out of a total of 99 cases of typhus notified 79 were admitted. Hence the isolation of scarlet fever cases became all but impossible, and the wonder is not that the disease spread somewhat widely, but that it did not spread even more. Amongst other improvements to be effected is the provision of a Washington Lyon's steam disinfecting stove. The Ransome stove in use has answered well, but in view of the amount of work to be done a more rapid process than that in which dry heat is relied on is needed. As usual, the report contains evidence of a large and steadily increasing amount of work, with a view of improving the health of the city, and much of this work is embodied in a series of tables which are most useful for purposes of reference. The population of Newcastle was 147,626 in 1882, and the death-rate 23·0 per 1000. This rate is higher than any that has prevailed since 1879, when the mortality was much the same, and it is largely to be attributed to the exceptional amount of infectious disease which has prevailed. The diagrams and disease maps are as usual well prepared, and well worthy of imitation elsewhere.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns, 5546 births and 3185 deaths were registered during the week ending the 7th inst. The annual death-rate in these towns, which had been equal to 18·7 and 19·3 per 1000 in the two preceding weeks, was again 19·3 last week. During the thirteen weeks of last quarter the death-rate in these towns averaged 21·6, against 20·5 and 20·9 in the corresponding periods of 1881 and 1882. The lowest rates in these towns last week were 10·8 in Brighton, 13·4 in Derby, 13·8 in Halifax, and 14·0 in Bristol. The rates ranged upwards in the other towns to 21·2 in Preston, 22·2 in Leeds, 22·7 in Newcastle-upon-Tyne, and 23·2 in Liverpool. The deaths referred to the principal zymotic diseases in the twenty-eight towns were 561, and, owing to the greater fatality of infantile diarrhœa, showed a further increase upon recent weekly numbers; 249 resulted from diarrhœa, 116 from measles, 71 from scarlet fever, 62 from whooping-cough, 39 from "fever" (principally enteric), 19 from diphtheria, and 5 from small-pox. No death from any of these zymotic diseases was recorded last week either in Wolverhampton or in Huddersfield, whereas they caused the highest death-rates in Liverpool and Newcastle-upon-Tyne. Measles was proportionally most fatal in Liverpool and Newcastle-upon-Tyne; scarlet fever in Leeds and Sheffield; "fever" in Portsmouth; and diarrhœa in Portsmouth, Nottingham, and Preston. The 19 deaths from diphtheria in the twenty-eight towns included 12 in London and 3 in Leeds. Small-pox caused 3 deaths in Birmingham, and one both in London and Hull. The number of small-pox patients in the metropolitan asylum hospitals, which had been 67 and 65 on the two preceding Saturdays, rose to 69 at the end of last week; 10 new cases were admitted to these hospitals during the week, against 14 and 11 in the two preceding weeks. The Highgate Small-pox Hospital contained 9 patients on Saturday last, no new case having been admitted during the week. The deaths referred to diseases of the respiratory organs in London, which had been 200 and 226 in the two previous weeks, declined to 179 last week, and were 22 below the corrected average. The causes of 72, or 2·3 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Brighton, Portsmouth, Nottingham, Sunderland, Derby, and Plymouth. The proportions of uncertified deaths were largest in Birkenhead, Preston, and Huddersfield.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been equal to 25·3 and 24·2 per 1000 in the two preceding weeks, further declined to 23·3 in the week ending the 7th inst.; this rate exceeded, however, by no less than 4·0 the mean rate last week in the twenty-eight English towns. The rates in the Scotch towns ranged from 11·9 and 16·1 in Perth and Edinburgh, to 25·5 in Greenock and 28·1 in Glasgow. The deaths in the eight towns included 78 which were referred to the principal zymotic diseases, showing a further considerable decline from recent weekly numbers; 25 resulted from whooping-cough, 11 from diarrhœa, 7 from "fever," 6 from scarlet fever, 5 from diphtheria, and not one from small-pox. The deaths from whooping-cough, which had been 32 and 26 in the two previous weeks, further declined to 25 last week, of which 16 occurred in Glasgow, 3 in Greenock, and 2 both in Dundee and Aberdeen. The 24 fatal cases of measles were 17 fewer than those in the previous week, and included 17 in Glasgow. The 11 deaths attributed to diarrhœa corresponded with the number in the previous week, and were 27 below the number in the corresponding week of last year. Six of the 7 deaths from "fever" and 5 of the 6 from scarlet fever were returned in Glasgow. The 5 fatal cases of diphtheria included 2 in Edinburgh and 2 in Paisley. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had declined from 112 to 87 in the four previous weeks, rose again to 104 last week, and exceeded by 12 the number in the corresponding week of last year. The causes of 90, or more than 16 per cent., of the deaths in the eight towns last week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been equal to 25·2 and 26·1 per 1000 in the two preceding weeks, declined to 22·7 in the week ending the 7th inst., and was lower than in any previous week of this year. During the thirteen weeks of last quarter, the death-rate in the city averaged, however, no less than 31·1 (against 35·2 in the first quarter of the year), while the mean rate in the same period did not exceed 20·5 in London and 19·6 in Edinburgh. The 152 deaths in Dublin last week showed a decline of 23 from the number returned in the previous week; they included 7 which were referred to "fever," 7 to whooping-cough, 4 to diarrhœa, 1 to measles, and not one either to small-pox, scarlet fever, or diphtheria. Thus 19 deaths resulted from these principal zymotic diseases, against 12 and 15 in the two previous weeks; they were equal to an annual rate of 2·8 per 1000, the rates from the same diseases being 4·2 in London and 1·3 in Edinburgh. The 7 deaths referred to "fever" corresponded with the number returned in the previous week, and were equal to a rate considerably exceeding that which prevailed in the twenty-eight English towns. The 7 deaths from whooping-cough showed an increase of 2 upon those returned in the previous week, and the fatal cases of diarrhœa were also more numerous. The deaths of infants showed a considerable decline from recent weekly numbers, while those of elderly persons were more numerous. The causes of 28, or 18 per cent., of the deaths registered during the week were not certified.

AT the quarterly meeting of the directors of the Naval Medical Supplemental Fund held on the 10th inst., Sir W. R. E. Smart, K.C.B., M.D., Inspector-General, in the chair, the sum of £90 was distributed among the several applicants.

THE SERVICES.

WAR OFFICE.—Deputy Surgeon-General Annesley Charles Castriot de Renzy, C.B., of the Bengal Army, to be Surgeon-General; Brigade Surgeon John Pitthall, M.D., of the Bengal Army, to be Deputy Surgeon-General; Surgeon-Major George William Jameson, of the Bengal Army, Surgeon-Major Lindsay Frederick Dickson, M.D., of the Bengal Army, Surgeon-Major John Bilderbeck, of the Madras Army, to be Brigade Surgeons.

INDIA OFFICE.—The Queen has approved of the retirement of Surgeon-Major John James Durant, of the Bengal Army.

ENGINEER VOLUNTEERS.—1st West Riding of Yorkshire: Surgeon Thomas Whiteside Hime resigns his commission; Acting Surgeon George Robinson to be Surgeon; William Dale James, Gent., to be Acting Surgeon.

RIFLE VOLUNTEERS.—1st Volunteer Battalion, the East Yorkshire Regiment: Surgeon John Augustus Wallis, M.B., resigns his commission; Herbert Rendell, Gent., M.B., to be Acting Surgeon.—20th Lancashire (2nd Manchester): John Scott, Gent., M.A., M.B., to be Acting Surgeon.—6th (West) Suffolk: Acting Surgeon Joseph Clement Norman resigns his appointment; William Thomas Angove, Gent., to be Acting Surgeon.—3rd Battalion, South Staffordshire Regiment: Moses Taylor, Gent., to be Acting Surgeon.

ADMIRALTY.—The following appointments have been made:—Staff Surgeon Robert Turner, to the *Victor Emanuel;* Surgeon T. J. Preston to the *Hibernia;* Surgeon C. L. Vasey, to the *Sultan;* Surgeon Alexander W. M'Leod, to Hong Kong Hospital, vice Bentham; Surgeon Edward H. Williams, to Haslar Hospital, vice M'Leod; Surgeon Alexander W. W. Reid, to the *Asia*, vice Williams; Surgeon George M'Cuffe, to the *Hecla*, complement incomplete; Staff Surgeons George Henry Madeley, to the *President*, additional for temporary service during absence of Fleet Surgeon Charles A. Lees; Surgeon Edward Ferguson, to the *Vernon*.

Correspondence.

"Audi alteram partem."

CHOLERA AND QUARANTINE.

To the Editor of THE LANCET.

SIR,—Continental editors and their correspondents, especially French and Italian, continue to ascribe the outbreak of cholera in Egypt to the conduct of the British Government and of the Government of India, in having required a relaxation of quarantine regulations established some time ago at Suez against vessels from India, under the authority of the Egyptian Sanitary Board. French and Italian writers must therefore place a firmer reliance on quarantine than is admitted by the great majority of those having the greatest experience of cholera—viz., medical officers of the Indian services.

This continental outcry for antiquated quarantine regulations indicates that our neighbours believe in the dissemination of cholera by human intercourse as the only way, or at least the principal way, in which the disease spreads. But the study of epidemics of cholera in India leads to the inevitable conclusion that while cholera may, and often does, spread by direct intercourse, its progress is more frequently effected in some other manner. It occurred to me to investigate several epidemics of cholera throughout the extensive province of Rajpootana, and I could cite numerous instances, commencing so far back as 1849, where the conveyance of the disease by human intercourse appeared as certain as the exact sciences; and I could cite numerous instances where the malady originated under the impossibility of such intercourse. I say the impossibility of such intercourse, because the disease broke out within a few days or hours at places so far apart, between which in a country destitute of railways communication was impossible, and in some instances impossible by express rail speed. The cholera, therefore, must have been conveyed through the atmosphere by germs, or it must have been the revitalisation of the germs of a previous epidemic, or it must have originated *de novo*. Now, there is nothing far-fetched in the germ theory as applied to cholera. Most persons who have been in the East will recollect how rapidly and how far impalpable sand dust is brought, after probably a high wind, from the semi-desert districts, travelling hundreds of miles in a night, sometimes apparently against the wind, and doubtless brought by an upper current, and in a calm spreading in all directions. Cholera germs, for aught we know, may be even more impalpable than this fine sand dust, or even than the atoms composing the scent of a flower. The revitalisation theory entails the belief in such germs lying dormant in the soil or otherwise for months or even years, from the period of the last epidemic, until revitalised under favourable but unknown atmospheric conditions. Personally I believe cholera originates *de novo*, and that if it is not conveyed by direct intercourse, it usually does so originate. Under this dual belief only do I think the irregular dissemination of the disease in India can be explained. Given certain but unknown favourable conditions of matter, certain but unknown favourable conditions of atmosphere, and certain but unknown conditions of human constitution, and I fail to see why a disease poison should not be produced and act as we know other poisons may be made to originate and act. But in whichever of the three manners indicated above cholera spreads, it is evident that its progress cannot be prevented by quarantine regulations. This reduces any advantages which may be derived from quarantine to instances where actual disease is present, or where it may have been present within a few days. There is a general consensus of opinion that the period of incubation of cholera is not more than ten days, and ordinarily only from two to three days. As the voyage from India to Suez usually requires a longer period than ten days, it is not possible that cholera could be introduced into Egypt by the crew or passengers of a vessel leaving India with a clean bill of health, and remaining free from disease during the passage.

At the commencement of last year, shortly after the Egyptian authorities first instituted quarantine, I brought the subject before the Medical and Physical Society of Bombay. At a full meeting, the members present being both native and Anglo-Indian, it was voted, if I recollect right, without dissent, that quarantine regulations enforced at Suez against ships from Bombay with a clean bill of health would be useless and unnecessary. I imagine it would be impossible to assemble a number of gentlemen with greater experience of cholera than those who took part in the discussion on this matter, and their deliberately expressed opinion was doubtless calculated to strengthen the position of the British authorities in requiring the removal of the vexatious quarantine regulations imposed by the so-called Egyptian Sanitary Board.

But there is the question of the conveyance of cholera through the medium of cargo and merchandise. This I believe possible, and, moreover, could detail the history of a recent outbreak investigated by a committee of which I was president where the evidence of the conveyance of cholera through the medium of cargo was to me, and to the members of the committee, conclusive. But I fail to perceive how quarantine regulations are to prevent this. If cholera is conveyed by cargo, it must be by the infection of the cargo by germs. Exposure to the air would result in the liberation of such germs, while the use of heat or fumigations in sufficient force to destroy the germs would injure or destroy most kinds of cargo, and especially so that cargo—as bags of provisions, for instance—in which cholera germs would be most likely to lurk.

Notwithstanding any continental outcry, our Indian, and consequently our greater, experience of cholera than that of any of our critics renders us confident that the existing Orders of Council on the subject of quarantine are right, good, and rational. They are directed against cases of actual or suspected disease, and not vexatiously against healthy people. It appears our continental neighbours would rather trust to keeping out cholera by quarantine regulations than to rendering cholera innocuous by good sanitation. But experience demonstrates that keeping out cholera by quarantine regulations is impossible, while on the other hand it is quite possible to render it comparatively harmless, or even quite harmless, by good sanitation. In this matter much of the Continent is behind England, and therefore the inhabitants of continental cities have most cause for fear. Hence frantic declarations against the

British authorities; spasmodic efforts to clean Augean stables; and the clinging to quarantine, as the drowning man to the reed.

I am, Sir, yours truly,

W. J. MOORE, C.I.E.,

Deputy Surgeon-General (late), Presidency Division, Bombay.

United Service Club, July 8th, 1883.

"NOTIFICATION OF INFECTIOUS DISEASE IN EDINBURGH."

To the Editor of THE LANCET.

SIR,—Dr. Carter's reply is no answer to my letter. He now avers that he is in favour of notification, and that he objects to the "creation of a new offence for medical men, and to their complete subordination to medical officers of health." Had he been conversant with the literature of this important subject, he would have known, first, that whatever plan of notification is adopted there must be penalties attached to non-compliance with an Act of Parliament; and, second, that it is only in the Edinburgh plan that medical men are completely emancipated from the interference of sanitary officials, all other plans, whether dual by the householder and medical man, or single by the householder alone, necessarily involving the interference of the sanitary authorities. Again, Dr. Carter manipulates statistics in such a way as to confirm your readers in the well-known saying that by statistics you can prove anything. Because, forsooth, the death-rate of Edinburgh (among the lowest in the country) has not lessened in the same mathematical ratio as that of the United Kingdom, he argues against the success of our system of notification. I might as well argue that because the death-rate of London is so low, notification of infectious diseases could be of little use in the metropolis, although for the last few years small-pox has been epidemic there, and a source of danger to the whole community—no fewer than three or four of our recent outbreaks in Edinburgh having been traced to that source. Dr. Carter is curiously incorrect as to my duties. No one in his senses would dream of instituting "in trivial cases" what is equivalent to the coroner's inquest; and again, he speaks of what undoubtedly would be my duty in extreme cases, involving great public risk, as my usual practice. Now, one great advantage we have obtained from notification in Edinburgh (about which Dr. Carter knows nothing) is that since 1879 medical men and the laity have become so enlightened that by both parties the importance of speedy isolation is recognised, and recourse to compulsion is unknown. The source of Dr. Carter's information on these and other points is well known, and the absurdities he gravely states as facts excite the ridicule of the profession here, who, I venture to think, will bear comparison with their brethren in Bolton, Blackburn, or Warrington. Dr. Carter and his friends have on two occasions issued circulars to medical men in Edinburgh to ascertain their feeling on the matter. Why is it that the result of these plebiscites has never been published? Will Dr. Carter and his friends try their fortune again? Lastly, I can assure Dr. Carter that it was in no sneering spirit I alluded to the high death-rate of Liverpool, and to the alarming outbreak of typhoid; both are matters, in my opinion, of imperial interest, and may become public scandals.

You kindly allowed me to notice a statement in your columns, and Dr. Carter has begun a correspondence. I shall be happy to afford that gentleman and others any information they may wish on sanitation in Edinburgh, but I decline to encroach further on your valuable space.

I am, Sir, yours faithfully,

Edinburgh, July, 1883. HENRY D. LITTLEJOHN, M.D.

To the Editor of THE LANCET.

SIR,—Dr. Littlejohn, in his letter on the above subject in your issue of the 30th ult., says:—"Dr. Carter's statistics, unfortunately, are as faulty as his quotations. He puts words into my mouth which I did not use, and he avails himself of incorrect statistics, although he and Dr. Hamilton could easily, had they chosen to apply to the proper quarter, have procured the true ones." I presume I am included in the above statement through a paper which I published a few months ago on the "Compulsory Notification of Infectious Diseases." That paper contained the conclusions I had arrived at from a visit which I, as one of a deputation appointed by the Health Committee of Liverpool to investigate the working of the Notification Acts, paid to several of the towns where they are in force. With regard to Edinburgh I gave certain facts which tended to show that there the results of compulsory notification were the least satisfactory of all. These facts have never been denied, so far as I am aware, by Dr. Littlejohn, but now in an indirect way, if I understand the paragraph aright, he accuses me of availing myself of incorrect statistics. My pencil notes, taken at the time in the Public Health Office, Edinburgh, are these:—"The staff consists of the medical officer of health, his clerk, two inspectors, and one constable. Number of certificates with the 'No' crossed out about one in twenty-five. Every case where immediate attention is indicated the medical officer sends at once to remove the case; sometimes they object, and 'we do not force them.' Unless fumigation, &c., is applied for we do not, as a rule, send the sanitary inspector to do it. It also happens in a small house where there is no removal that they cannot always fumigate. In very many instances of the poor living in flats, or in one room of a flat, fumigation could not be carried out because there was nowhere to remove the people to whilst the process was going on; they could not be left in the passages or landing for so many hours, and the neighbours would not take them in. The sanitary authorities undertake the removal of bedding and clothes to the Blind Asylum, where the disinfection is carried out, but the latter charges for the work, and for conveying the articles home. Present scarlet fever outbreak, there had been 532 notifications of it sent in from July 1st to Sept. 17th, 1882, inclusive, a period of thirteen weeks. The notifications of infectious diseases sent in during the year 1880 were 5705, of these 331 were removed to hospital, and 642 apartments were fumigated. The fees paid to medical men from Nov. 7th, 1879, to June 30th, 1882, amounted to £1787. The last six months—namely, from Jan. to June, 1882—£632 had been paid. One medical man received as much as £28 in the half year."

Now, I think the conclusions which most people would arrive at from the above facts are these:—That the amount of fumigation of infected houses and rooms done by the sanitary authority is small, being only about one in nine reported cases. That there are very many rooms, and these of the worst kind, that are not fumigated because of the practical difficulties in the way. That as only about one in twenty-five of the certificates sent in leads to any investigation or interference on the part of the sanitary authorities, very little check is put by them on the spread of disease. That the staff employed would be totally inadequate for the work devolving upon it, if that work was carried out in all the fulness which the outside public is led to believe it is, including, as that work now does, the removal of infectious cases; the fumigation of houses; the oversight of dairies; the examination of sewers, drains, and all reported sources of infection; the carrying of infected articles to the Blind Asylum, in addition to all the duties of the department which existed before the passing of this Act; that the removal of infected persons is hedged about with difficulties which the authorities do not care to grapple with, and that it is mainly, if not entirely, members of the pauper class or those immediately above them who are removed. This is no more than every town does without the Acts. Liverpool, without them, removes a proportionately much larger number every year to workhouse or hospital than Edinburgh does. In 1882 Liverpool, with a population of 560,377, removed 2502 cases to workhouse or hospital. In the same year Edinburgh, with a population of 232,440, removed only 539 cases. Lastly, the one part of the system which works vigorously is the certificate giving. Venturing to give a natural and common sense explanation of this, we are told by Dr. Littlejohn that this is an estimate of professional honour which is not complimentary. Yet there has been nothing derogatory to the highest standard of professional morality asserted. The Edinburgh medical men have confidence that the understanding come to with Dr. Littlejohn, of "no interference unless they desire it," will be honourably adhered to, and they on their part reciprocate the feeling, and certificates pour in.

In conclusion, I would say that any system of certificate giving, or to give it the name now in use, of compulsory notification, must, in my opinion, be so hedged about with provisos to make it acceptable to the public and the pro-

fession, that it practically becomes useless for the purpose of checking epidemic disease, whilst it entails a heavy expenditure on the ratepayers, and that the Edinburgh scheme of notification strikingly exemplifies the truth of this.

I am, Sir, your obedient servant,

Liverpool, July 7th, 1883. ROBERT HAMILTON.

"UNCERTIFIED DEATHS IN SCOTLAND."

To the Editor of THE LANCET.

SIR,—In the issue of THE LANCET for June 23rd there appears an article on the above subject, in which it is stated that "regarding England we do not err far in stating that the average of uncertified deaths is about 3·3 per cent. of the total." If this calculation is correct as regards English towns, the number of uncertified deaths in this rural district must be considered enormous. In my last annual report to the Hexham Rural Sanitary Authority, a copy of which I now forward to you, it is stated that 13·6 per cent. of total deaths were not certified. At pages 16 and 44 an analysis of all uncertified deaths is given, showing that 8·1 per cent. were not certified in any way; 4·0 per cent. of total deaths were certified by the coroner, having held inquests on them; and 1·3 per cent. were certified by the coroner without having held any inquests at all. It is unnecessary to add, that with the exception of those certified by the coroner after having held inquests—viz., 4·0 per cent.—the death returns professing to give the "cause of death" of the remainder are absolutely valueless. A suggestion is made in the same report, that "all uncertified deaths, whether an inquest has been held or not, should be immediately reported to the medical officer of health, to be investigated by him, instead of, as now, being reported to a non-medical coroner." Even in many of those cases on which inquests have been held no medical evidence has been given, so that these may be placed in the same category as others certified by the coroner without the assistance of an inquest. As an example of the value to be attached to such certificates I may quote a case which occurred in this district a short time ago. A death from typhoid fever having been reported in the usual weekly return I made particular inquiries regarding it. The case was that of a pupil teacher in a school in Allendale, but whose home was at Haydon-bridge, residing at the former place most of the week but returning home on Friday evenings. On Friday evening, May 25th, he walked from Allendale to Haydon-bridge, a distance of seven or eight miles, about 7 P.M. I have said, in answer to inquiries, that he was "very well." On Saturday morning he rose with a headache, and was sick, but walked about all day till half-past two, then went to bed feeling bilious and complaining of pain in his head; had his feet bathed it warm water, and had some brandy. His sister, on account of the pain in his head, remained with him till 1 A.M. on Sunday morning, when he appeared to be going to sleep; he was seen at 6 A.M. and was no worse; at half-past six he was dying. The medical attendant was sent for, but he was dead before his arrival. The above is a case regarding which the coroner (non-medical) did not see any necessity for an inquest, but *certified the death to the local registrar as "typhoid fever,"* which conclusion he arrived at from what he was pleased to call "credible information." From such cases as the above, and considering the great percentages of uncertified deaths which are reported, it is obvious that some very great changes must occur before the registration of causes of death can be of any value whatever.

I am, Sir, yours truly,

J. M'GRIGOR MACLAGAN, M.D.,
Medical Officer of Health, Hexham and Haltwhistle
June 27th, 1883. Rural Sanitary Districts.

LONG HOURS AND INSUFFICIENT FOOD.

To the Editor of THE LANCET.

SIR,—The attention of the public has only lately been again drawn to the long hours during which railway officials are presumed to be able to work, and to the dangers to which this leads. Engine drivers and guards are, however, not the only people who daily have to perform far too many hours of incessant labour, and in London, were we to examine closely, I am sure we could find many who are being slowly killed by overwork. I was asked a few days since by a patient of mine to see her sister, who had been compelled to leave her employers owing to severe debility. The history of the case was as follows:—A. B——, aged about eighteen, was in perfect health nine weeks since, when she took a situation as one of the numerous assistants in a well-known retail establishment at the West-end. Her hours of work were from eight in the morning until eight at night, standing all the time, with intervals of twenty minutes for breakfast, half an hour for dinner, a few minutes for tea. The meals were badly served; insufficient in quantity and not sufficiently varied, as the following *menu* will show:—Breakfast: Bread-and-butter (salt). Dinner: Hot meat and potatoes, alternating with cold meat and bread every other day; pudding twice a week, consisting of boiled rice. Tea: Bread-and-butter (salt). Supper: Bread-and-butter (salt). The food was so untempting that as a rule most of the assistants only remained in the room at dinner (?) about ten minutes, and the quantity was not sufficient. Considering this bill of fare, I did not wonder at my patient's weakness; and finding no disease sufficient to account for the symptoms, I prescribed a continued absence from her employer's premises and good food.

Fortunately, in this case there was a good home to fall back upon; but in too many instances girls have no place to go to, and dare not complain or leave their places, as they know that situations, even like these, are not too easily obtained. I find on inquiry that this kind of treatment is by no means peculiar, and that in many other establishments the domestic expenses are cut down as low as possible for economical reasons. Perhaps some day a coroner's inquest may throw more light upon these matters, but, in the meantime, I certainly think that all large institutions employing female labour ought to be, like factories, under Government inspection, and not left to the tender (?) mercies of a housekeeper, whose sole idea is to keep down the weekly bills.

I am, Sir, yours faithfully,

July, 1883. A. GEORGE BATEMAN, M.B.

"ACUTE RHEUMATISM AS A PREMONITORY SYMPTOM OF PHTHISIS."

To the Editor of THE LANCET.

SIR,—I fail to see anything remarkable in the cases of acute rheumatism and phthisis reported by Dr. Austin in THE LANCET of July 7th. Phthisis is a very common disease, and acute rheumatism is not rare, so that we need not be surprised at the two diseases occasionally co-existing in the same individual. The more marked symptoms of phthisis would probably pass into abeyance during the attack of rheumatism, and light up again with increased severity afterwards, when the patient is left weak and exhausted. The same sort of dormancy, but for a longer period, is seen in pregnancy, also followed by a rapid development of phthisis after delivery; but it is not asserted that pregnancy is a "premonitory symptom" of consumption. If, on the other hand, as Dr. Austin seems to suggest, the joint disease was tubercular, then it was not acute rheumatism at all.

I am, Sir, your obedient servant,

Harley-street, W., July 7th, 1883. JULIUS POLLOCK.

To the Editor of THE LANCET.

SIR,—Dr. Austin in THE LANCET of last week sketches the history of four cases of acute rheumatism as premonitory of phthisis. Without doubt, in most instances, acute rheumatism occurring in young subjects undermines the general health, so that if there be any hereditary tendency to consumption pulmonary mischief is apt to follow. Lately, I have had under treatment a lady, aged thirty-five years, who, about this time last year, had an acute attack of rheumatism, which from its duration of two months considerably reduced her strength. Most of the joints were affected; upon subsidence of pain and swelling, cough of an irritable kind set in, and in a short time the lungs began to manifest symptoms of tubercular disease, which quickly led on to vomicæ; throughout the illness the temperature remained somewhat high. At length diarrhœa set in, and the patient died of exhaustion. The father died many years since from pulmonary affection. I consider in this case the constitutional powers gave way under the prolonged

attack of rheumatism, and, perhaps from hereditary tendency to lung complaint, phthisis wrs the result. At times she suffered from irritability of the bowels, upon derangement of the digestive organs. Probably, as the attack could not be traced to any undue exposure to atmospheric influences, tubercular deposits took place upon the synovial membrane, giving rise to the inflammatory affections of the various joints. I am, Sir, yours truly,

Forest-hill, July 7th, 1883. SPENCER T. SMYTH, M.D., &c.

WESTON-SUPER-MARE.

To the Editor of THE LANCET.

SIR,—A report calculated to seriously injure the town of Weston-super-Mare having been persistently circulated, to the effect that typhoid fever, diphtheria, and other zymotic diseases are epidemic in Weston at the present time, we, the under-mentioned medical men practising in Weston, beg to state most emphatically that such report is absolutely devoid of any foundation whatever.

The report for the last quarter of the medical officer of health shows that the state of the town is exceptionally good, and will bear favourable comparison with that of any other health-resort of its size. *No epidemic of any sort* exists, and very little sickness has been prevalent during the last three or four months. The town authorities have expended large sums of money in adopting a thorough system of drainage in accordance with the latest scientific ideas, and, by thoroughly ventilating all the sewers, have placed the sanitary condition of the town above suspicion. We therefore hope that you will give this statement the fullest publicity in your columns, and so help in contradicting a malicious and false libel.—We beg to remain yours truly,

RICHARD ALFORD, F.R.C.S. Eng., L.S.A.
ROBERT ROXBURGH, M.B., F.R.C.S.E.
EDWARD F. MURTON, M.B., M.R.C.S.
FRANCIS W. S. WICKSTEED.
W. HARFORD G. PHELPS, M.D., M.R.C.S. Eng.
GEORGE F. ROSSITER, M.B. Lond., M.R.C.S. Eng.
GEO. ERNEST ALFORD, L.R.C.P.E., M.R.C.S. Eng.
GRÆME B. FRASER, M.R.C.S. Eng., L.S.A.
WILLIAM JONES, F.R.C.S. Eng.
JOHN WILDE, L.R.C.P., M.R.C.S., L.S.A.
WILLIAM BLUNDELL, M.R.C.S. and L.S.A.
ALFRED WILLMOTT, M.D. Edin.
P. B. BURROUGHS, M.R.C.S. and L.S.A.

July 11th, 1883.

P.S.—The medical officer's report, published this evening, is enclosed with this letter.

THE HOME SECRETARY AND DR. BLADES.

To the Editor of THE LANCET.

SIR,—I hear nothing but a general feeling of indignation on the part of the profession at the course taken by the Home Secretary in the case of Dr. Blades. I beg to propose that a petition be drawn up and lie at your office (with your kind permission) requesting the Home Secretary to reconsider the case, and asking him to take counsel with some of the medical officers of the Crown, and I feel sure he will then decide that it will be a gracious act of conciliation to reinstate an officer who has faithfully performed his duties for eighteen years. I am, Sir, yours obediently,

July, 1883. A POLICE SURGEON.

*** We quite agree with the above remarks. The petition referred to will lie at our office for signature.—ED. L.

LIVERPOOL.

(*From our own Correspondent.*)

FEVER AND ISOLATION.

AT the monthly meeting of the City Council on the 4th inst., the subject of fever hospital accommodation was raised, and it was stated that in the Netherfield Hospital for Infectious Diseases the Council had twenty-five beds placed at their disposal, for which they paid an annual sum of £400. Subsequently the following resolution was adopted:—"That the Health Committee be instructed to report upon the present provision for the accommodation of patients suffering from infectious diseases, and upon the necessity, if any, of making further provision for such cases, by hospital accommodation or otherwise." From the circumstance that this was carried by a majority of twenty-four against six, it is evident that the city councillors are sensible of what has been urged in recent medical annotations in THE LANCET—viz, that it is the duty of the City Council to provide fever hospitals for the citizens; and that the Poor-law guardians have fully discharged their duty in providing a number of beds sufficient for pauper cases.

THE NORTHERN HOSPITAL.

The tendency of accidents to come in numbers was curiously illustrated on the 3rd inst., when three cases of injury to the elbow were admitted under the care of Dr. Macfie Campbell. One was a compound dislocation of the elbow with severance of the vessels at the bend; another was compound dislocation of the elbow; the third, simple dislocation of the elbow-joint with great contusion, caused by a severe blow on the flexed forearm by a winch handle.

HOSPITAL AMBULANCE.

This same hospital receives many patients with severe injuries from the docks, railways, and large centres of labour in its neighbourhood, who have hitherto been conveyed in cabs or on stretchers. Nothing can be more painful to a professional observer than the sight of such cases; the feeling being enhanced by the knowledge of how greatly fractures and dislocation must be aggravated by this species of locomotion. Through the energy of Captain Joynson, the chairman of this hospital, an ambulance, constructed under the superintendence of Mr. John Furley, of the St. John Ambulance Association, has been purchased and will in future be kept at the hospital, a horse and driver being also kept ready to start at a moment's notice. One of the three house-surgeons of the hospital will go with the ambulance to the scene of the accident, where he will be able to render valuable assistance. The hospital is being connected with the Telephone Exchange and by direct wire with the Central Police Office. The ambulance will be for the district from which the Northern Hospital derives its cases, and, if successful, as it is certain to be, it is to be hoped that other hospitals will follow so excellent an example.

REMARKABLE TUMOUR.

At the Royal Southern Hospital, Mr. Paul removed on the 4th inst. a tumour of some considerable interest. The patient was a woman, aged fifty. So long as she could remember, there had been a gradually increasing swelling of the left superior maxilla. At the age of twenty-four this was removed by Mr. Bickersteth, and was found to be a dense osseous hypertrophy of the whole bone. Since the operation the opposite bone gradually underwent a similar enlargement, and was removed at the age of forty-seven. At this operation a quantity of myeloid growth was found in the zygomatic fossa. There was a rapid recurrence, and the patient in a few months came under the care of Mr. Paul in the Stanley Hospital, when he cleared out the contents of the orbital, zygomatic, and temporal fossæ, and removed the external angular and zygomatic processes, together with all the superficial parts. The hæmorrhage was very severe, but recovery was rapid, and the disfigurement was not nearly so marked as might have been expected. The patient was not seen until she appeared again at the age of fifty, with a recurrence the size of an orange projecting from the cheek, the only difficulty in removing which was profuse hæmorrhage from every incision. At the close of the operation the cautery was used, and further hæmorrhage controlled by sponge pressure. Although rather collapsed at the time, she is now (July 10th) doing very well. While at the Stanley Hospital the patient had an attack of palmar psoriasis, which yielded to antisyphilitic remedies; this was the only evidence of syphilis.

THE London Sanitary Protection Association is to hold a meeting in the Kensington Town Hall on Tuesday, the 17th inst., at 8.30 P.M., at which the newly elected President, the Duke of Argyll, will take the chair for the first time, and will deliver an address upon House Sanitation. Tickets can be obtained gratis on application to the Secretary of the Association at the office, 1, Adam-street, Adelphi.

NEWCASTLE-ON-TYNE.

(From our own Correspondent.)

COLLEGE FOR THE UNIVERSITY OF DURHAM AT NEWCASTLE.

AN influential deputation lately waited on our City Council, asking for a site on the moor near this city for the erection of a college for the University of Durham. The deputation stated that they were willing to pay £500 per acre for it, and at once proceed with the erection of the proposed buildings. This would comprise departments for medicine, physical science, and fine arts, with a residential hall for students. The Mayor, on the part of the Council, said that they were willing to favour the object so far as they were advised that it could be legally done. It appears that the freemen—a very conservative body as regards "their rights"—stand in the way, as, indeed, they do at first to every improvement; but it is likely that the Council will attain their object more readily by going to Parliament for an Act and powers than by tedious negotiations with the freemen. The present college premises have been secured to the North-Eastern Railway for extension of street and other alterations in connexion with the central station.

THE LATE DR. MACKIE OF HEIGHINGTON.

The inauguration of a stained glass window at Heighington, near Darlington, took place the other day; it was placed in Heighington Church in memory of the late Dr. Mackie, who had practised in the district for thirty-six years. The cost, over £100, has been contributed by the members of the South Durham and Cleveland Medical Society. At the luncheon which followed the little ceremony Dr. Mackintosh of London presided, and he received a hearty welcome to the North from many of his old friends. This movement of the South Durham and Cleveland Medical Society has been carried on in a very quiet but effective way, and the window is a graceful recognition on their part of the memory and respect in which they held their late friend.

A NEW BATTERY FOR ILLUMINATION, ETC.

I lately had the pleasure of inspecting a battery invented and patented by Mr. James Gray, of Gateshead, an account of which I think will be of interest, and I look forward to its adoption as a valuable instrument in practice and scientific investigation. The battery is contained in a neat ebonite box, three inches and a quarter square by six inches high, divided by partitions into four compartments or cells. It is lifted by a leather strap, and is as handy and portable as a carriage clock. It will keep a three-candle incandescent lamp at full illuminating power for ten hours without requiring to be touched, or keep four inches of platinum wire white hot. I understand that it will drive a Gramme ring producing a motive power of 200-foot pounds at the rate of 200 revolutions per minute for six hours at a cost of materials of one shilling. The power of doing mechanical work has never been got in so small a compass, and at such a cost that neither man nor horse power can compete with it; but I desire here to speak more especially of its use and adaptability to medical purposes. It appeared to me that the distinctive features of this new electric marvel was in its duration, and polarisation being by its action completely overcome.

SCOTTISH NOTES.

(From our own Correspondent.)

ST. ANDREWS UNIVERSITY MEDICAL FACULTY.

THE chances of legislation during the present session on the lines of the Universities (Scotland) Bill have now disappeared, and hence the interest in the position of matters at St. Andrews is less immediate than was expressed a few weeks ago. In view, however, of conflicting opinions as to the proper destiny of the so-called medical faculty there, it is well that the opinion of the gentlemen chiefly concerned should be mentioned. This has been furnished in a memorial to the Lord Advocate, in which it is stated: 1. "With regard to the proposal to introduce a clause in the Universities (Scotland) Bill to admit ladies to matriculation and graduation in the Scottish universities, we beg to state, with all deference, that we are averse to the introduction of such clause, if St. Andrews University alone is to be empowered or requested to confer these privileges. 2. With regard to the suggestion to transfer the medical faculty of the University of St. Andrews to Dundee, we, the members of the said faculty respectfully submit that it would be mistaken policy to transfer the medical faculty or any member thereof to Dundee, unless it be intended to transfer the whole university. 3. The science teachers welcome the institution of a first or entrance examination in all the faculties. 4. The opening up of the Arts degree, so that natural science may be included as a group of qualifying subjects, is strongly adhered to; and 'the University of St. Andrews, it may be stated, has pledged itself to a trifurcation of subjects for the Master of Arts degree, to wit, languages, philosophy, and science; and to this the undersigned cordially assent, as well adapted to the claims at present existing,' and for other reasons." These main contentions are supported by a long list of arguments weighty of themselves, but all tending—and this is the chief point to the profession—to withdraw St. Andrews from even the semblance of purely medical teaching now existing. Drs. Pettigrew, M'Intosh, and (with some reservation) Heddle sign the document from which the above quotation is taken; and in the further consideration of this and other matters, it will not be unfair to assume that these gentlemen aspire only to complete incorporation in an extended faculty of arts.

MEDICAL CERTIFICATES TO JURYMEN.

On Lord Craighill's recent visit to Dundee, and while presiding in the Circuit Court, two certificates from medical men were handed in accounting for the absence of jurymen on the ground of infirm health. His lordship stated that in future such vague certificates would not be accepted, and that the true character of the malady preventing attendance must be given. He also stated that absence on the Continent was not a sufficient excuse for non-attendance. I suppose Lord Craighill may be trusted in his law as regards medical certificates, but none the less the inconvenience and unpleasantness of having the nature of many ailments made public should be regarded. All sorts of societies demand that the disease shall be definitely stated, no matter how delicate may be its nature, and thus positive injury may be inflicted on our patients for absolutely no useful purpose. A certificate, especially if on soul and conscience, and obviously genuine, should be above suspicion; but in the case of benefit societies adhering to this absurd rule the use of polysyllabic technicalities is quite as effectual. I remember an over-curious master being evidently nonplussed when informed that his domestic suffered from psoriasis.

OUTBREAKS OF MEASLES.

A severe epidemic of measles has occurred in Lockerbie and its neighbourhood, and, according to latest reports, the Orkney outbreak is still spreading to other islands in the group. So prevalent is the disease that in some of the fishing villages work has been interfered with.

MONTROSE INFIRMARY BOARD.

An attempt was made at the last meeting of this board to have a vote of censure passed upon Dr. Key for alleged incivility to a clerical member. Dr. Key was recently successful in obtaining the appointment held by the late Dr. Steele; but the election excitement, which was very considerable, does not yet appear quieted, and a little irony on the part of Dr. Key's partner has given rise to a scene not particularly creditable to any of the parties concerned. A committee was ultimately appointed for the purpose of arranging matters, and it may be hoped little further will be heard of the subject.

THE THOMSON LECTURESHIP, ABERDEEN.

It is all but arranged that Mr. W. Carruthers, of the Natural History Section of the British Museum, will deliver the lectures on Natural Science in the Free Church College, at Aberdeen, next session. The subject of the course will probably be "Fossil Plant Life."

THE Duke and Duchess of Connaught have accepted an invitation to open the new buildings of the Norfolk and Norwich Hospital in August or September.

IRELAND.

(From our own Correspondent.)

ROYAL UNIVERSITY OF IRELAND.

THE first report of the Royal University has been issued as a Parliamentary paper, and is a statement of the condition and progress of the university since it was enabled to discharge the functions entrusted to it. The first matriculation examination took place in Dec. 1881, and 728 candidates entered their names, of whom 114 were absent from the examination. Of those present 106 failed to satisfy the examiners, while 508, or over 82 per cent., passed. In June, 1882, the first medical examinations were held; sixty-five candidates presented themselves for the final examination for the degree in medicine, or its complement, the mastership in surgery, or the diploma in obstetrics. Of these 39 passed the examination, and were admitted to the degree or diploma. At the preliminary professional examinations, held at the same time, known respectively as the first and second examinations in medicine, 201 candidates came forward, of whom 133, or 66 per cent., passed. At the autumn examinations 93 candidates were examined at the degree examinations in the faculty of medicine, of whom 57 passed. Of these, 3 passed the special honours examination, and of the 159 who presented themselves at the first examination in medicine 94 passed, 4 with honours; while of 118 candidates at the second examination in medicine 73 passed, 6 with honours. On April 18th, 1882, the Senate elected twenty-one Fellows of the university, who are bound to conduct the various university examinations and to teach matriculated students of the university in the college with which they are connected. Additional examiners were appointed by the Senate in April and July, 1882. In Aug. 1881, the Royal University of Ireland Act, 44 and 45 Victoria, c. 52, was passed, granting an endowment to the university of £10,000 for the year ending July 1st, 1882, and thenceforward £20,000 a year. This endowment, with the fees which have to be paid by all the candidates for examination, constitute the income of the university.

UNIVERSITY OF DUBLIN.

The Professorship of Anatomy and Surgery in the Medical School of Trinity College, vacant by the resignation of Professor Macalister, will be filled up on September 29th next, by the Provost and Senior Fellows. The salary attached to the post consists of a yearly sum of £250, and, in addition, of fees of three guineas payable by each student attending a three months' course of clinical lectures delivered by the professor in Sir Patrick Dun's Hospital. Besides this there are other fees from persons attending the professor's lectures other than clinical, and a portion of the profits arising from the dissecting room. By a resolution of the Provost and Senior Fellows no university professor in the School of Physic can hold an appointment as medical officer to any clinical hospital other than that of Sir Patrick Dun's; an unwise arrangement by which the number of candidates who otherwise might compete is unduly restricted. It is rumoured that Dr. J. E. Little, professor of anatomy in the School of Physic, and Dr. Cunningham, who holds a similar post in the medical school of the Royal College of Surgeons, will be candidates. Professor Macalister, the late occupant of the chair, having been appointed to the Chair of Anatomy in Cambridge University, his friends in Dublin have arranged to give him a farewell dinner on the 17th inst., when the chair will be filled by the Rev. S. Haughton, M.D.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

It is stated that the Honorary Fellowship of the College will shortly be conferred upon Dr. Thos. Crawford, Director-General of the Army Medical Department, and on Sir James Hanbury, C.B., the chief surgeon during the late war in Egypt. Out of a total of thirty-four gentlemen who have received distinction during the past hundred years, only eight recipients of the honour are alive; Professor Hermann Helmholtz, of Berlin, was the last name added to the list.

THE TELEPHONE IN HOSPITALS.

Several hospitals in Dublin, Jervis-street, St. Vincent's, Cork-street, &c., have now a means of communication with their medical staff by means of the telephone. In the interests of the sick poor, and also as a great convenience to the visiting surgeons, it is advisable that all the hospitals should adopt the same arrangement. The Richmond Hospital authorities have the matter under discussion, and in their case it would be additionally advantageous, as the surgeons, without exception, reside at a considerable distance from the institution. It is probable that before long all the general hospitals in Dublin will use the telephone, a system which has now become all but universal in continental hospitals.

PARIS.

(From our Paris Correspondent.)

INCREDIBLE though it may seem, the medical men in attendance on the Count de Chambord have not yet arrived at a positive diagnosis of the real nature of the malady he is suffering from. As far as an outsider can judge from the symptoms described in their report, gastric pains, anorexia, and frequent vomiting, accompanied by progressive emaciation, are surely sufficiently characteristic of malignant disease of the stomach. Hitherto there has been no fever present, but on the night of the 8th instant a slight increase of the normal temperature was noticed for the first time. This was attended with great physical prostration, which has continued to increase, and the emaciation has been so rapid that it is estimated that the patient has lost fifty pounds in the week. The latest telegrams of this morning report that, although the gastric symptoms have somewhat abated, the general state of the sufferer is not improved. He is extremely weak and restless, but, notwithstanding this, the physicians in attendance see no immediate danger. It may be worthy of remark that no French physician or surgeon has been called in consultation.

The Parisians are being entertained by a party of Cingalese just arrived from Ceylon, and who are encamped in the Jardin d'Acclimatation. They are twenty-one in number, consisting of thirteen men, five women, and three children. One of the latter, an infant, was born at sea. The men are rather handsome, of a dark-copper complexion, but their muscular system is not much developed. Their hair, which is jet black, is straight and long, and put up in a knot at the back of the head, the whole fastened with a large crescent-shaped comb. The forehead, which is high, is surmounted by a red kerchief, which serves as a turban, but they go about for the most part bareheaded. Their costume consists simply of a long piece of coloured cotton cloth, which they ingeniously wind round their body so as to form a sort of petticoat. The upper part of the body is generally bare, but since their arrival in Europe they have taken to knitted cotton vests as they feel the effects of the difference of climate. The women are dressed much in the same way, but they wear a jacket of some bright colour and their hair is ornamented with flowers and ribbons. They have a troop of ten elephants with them, which are made to work in various ways, such as carrying with their trunks large logs of wood, trunks of trees, blocks of stone, &c.; they are also employed in mixing the mortar for building purposes, which they likewise do with their trunks; and the docility and intelligence they display attract the admiration of the lookers-on, who go to the garden every day by thousands to witness the interesting sight. The elephants are rather smaller than those of Central Africa, and their hind feet have four toes instead of three, as is the case with the African elephant. Small bullocks, scarcely higher than a new-born calf, are harnessed to light carts which are used for travelling and other purposes. They are guided by reins which are passed through the septum of the nose, and trot as fast as any pony. Ethnically, these Cingalese seem to be of a mixed type, between the Caucasian and that of the aborigines of Southern India. A young man, a native of Bombay, has accompanied the party; he is a juggler and snake charmer by profession, and he astonishes the visitors daily by his legerdemain and his manœuvres with the snake.

Every precautionary measure is being taken to prevent the incursion into this country of cholera, which is still raging in Egypt, but the French reproach the British Government for not doing the same on their side, as information has been received in Paris that Egyptians starting from Cairo for Europe actually embark at Suez in vessels destined for England, no quarantine being established at the latter place

for ships passing through the canal, and thus they avoid being subjected to the inconveniences of quarantine in the Mediterranean ports; but they very pertinently ask what guarantee is afforded against the transmission of cholera by these vessels with the passengers and freight shipped on board at Suez. Whether such a reproach is merited or not you will be in a better position to ascertain. In any case, such an accusation is of too grave a nature to be left unnoticed. From the latest official information received in Paris, the cholera is as yet confined to the Red Sea ports and the borders of the Nile, and no authentic case has been heard of in France.

Paris, July 11th, 1883.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AT a quarterly meeting of the Council, held on Thursday last, Mr. Lund, of Manchester, was elected a member of the Court of Examiners, vice Mr. T. Holmes. Mr. Marshall was elected President of the College for the ensuing year, and Messrs. Cooper Forster and Savory were elected senior and junior Vice-Presidents respectively. Sir Henry Thompson was elected Professor of Surgery and Pathology, Messrs. Flower and Parker were re-elected Professors of Comparative Anatomy and Physiology, and Mr. Schäfer was elected Lecturer on Anatomy and Physiology.

A committee was appointed to consider the motion of Mr. Cadge on voting at the College elections (see THE LANCET, June 16th, p. 1071). The committee comprises the following members of the Council:—Sir James Paget, Mr. Humphry, Mr. Erichsen, Sir Spencer Wells, Mr. Holmes, Mr. Lund, Mr. Cadge, together with the President and Vice-Presidents *ex officio*.

MEDICAL NOTES IN PARLIAMENT.

IN the House of Commons on Thursday, 5th inst., the Medical Act (1858) Amendment Bill (Lords), which provides for the representation on the Medical Council of the Royal University of Ireland, was read a third time and passed. The Detention in Hospitals Bill was withdrawn, and another Bill, which remedied an oversight in the former measure with regard to the technical repeal of the Contagious Diseases Acts, was presented and read a first time. The Bill was promptly "blocked" by Mr. Bentinck.

On Friday, Sir C. Dilke promised Dr. Cameron to obtain a copy of the tables recently issued by the German State Health Office, illustrating the working of the vaccination laws in Germany.

The Contagious Diseases Acts.

On Monday, amongst several Bills withdrawn by the Government were the Prevention of Floods Bill, the Charitable Trusts Bill, and the Burgh Police and Health (Scotland) Bill. Mr. Gladstone, in announcing the Government programme for the remainder of the session, expressed a hope that they would be able to carry the Medical Bill, and placed the Detention in Hospitals (No. 2) Bill in the category of doubtful. Captain Price gave notice of the following amendment to the order for the second reading of the last-named Bill:—"That, in the opinion of this House, it is not expedient to repeal Acts which have proved of great value to the health and morality of the public, as well as satisfactory to the inhabitants of those districts where they operate, in order to substitute for them a measure of which the Minister in charge has stated that he has no great hopes of its efficacy."—Lord Hartington stated, in reply to Sir H. D. Wolff, that the number of women in lock hospitals within the protected districts was 267 at the time the Contagious Diseases Acts were suspended, and had now fallen to 134.

On Thursday, Lord Hartington, in answer to Capt. Rice, stated that there had been an increase of venereal disease amongst the troops at "protected" stations since the abolition of compulsory examination of women. During the last four weeks of the administration of the Acts the cases were 11·89 per thousand, and during the four weeks immediately following their suspension the proportion rose to 17·4 per thousand.

Uncertified Deaths in Scotland.

On Monday, the Lord Advocate, in reply to Dr. Cameron, said he believed the discrepancy noticed in THE LANCET between the numbers of uncertified deaths in England and Scotland was more apparent than real. In the first place, the Registrar-General in Scotland made up his return of uncertified deaths weekly, while the medical practitioner would certify the death at any time within ten days, so that a considerable proportion of deaths returned as uncertified were afterwards duly certified. There was no annual return of uncertified deaths, but he understood that the Registrar-General some time ago decided that it was desirable to have one. In the second place, there was a considerable number of deaths with respect to which trustworthy information was obtained, though they were not certified by qualified practitioners. For example, the large number of poor patients who were attended to in dispensaries or elsewhere in large towns by senior medical students, and also the cases which were investigated by the Procurator Fiscal and found to present no element of suspicion. He had no reason to suppose that the number of post-mortem examinations in cases of uncertified deaths was decreasing, but questions had arisen in passing the accounts of the Procurators Fiscal whether a post-mortem examination was reasonably necessary in particular cases.

Irish Prison Surgeons.

Mr. Trevelyan stated to Mr. Gibson that the Government had decided that they could not entertain the claim of the Irish prison surgeons for additional remuneration merely on the ground of a temporary increase of work under the Peace Preservation Acts. The Treasury would, however, consider any cases in which it was shown that prison officers were put to any extra expense. That was the principal ground upon which the claim of the police was entertained. He was not aware that any promise was made to the surgeons by the Irish Executive at the time the duties were imposed, or that any special offer had been made to them.—Mr. Gibson asked whether the right hon. gentleman was aware that Dr. Clark, on the part of the prison surgeons, had an interview with the late Chief Secretary, Mr. Forster, in the presence of the late Mr. Burke, when it was distinctly promised that favourable consideration should be given to the claim; and if the right hon. gentleman found that was so, would he have the matter reconsidered.—Mr. Trevelyan replied that he was not aware of any such interview, but he would make inquiry.

Sir C. Dilke stated, in answer to Mr. Moore, that Dr. Blaxall's report on infectious diseases in emigrant ships would be published as an appendix to the report of the medical officers to the Local Government Board.

The Cholera.

Lord E. Fitzmaurice, replying to Mr. O'Donnell, stated that the number of deaths from cholera in Calcutta during April, May, and June this year was 1191, as against 1052 in the same period of last year. A health statement from India was telegraphed fortnightly for communication to ports in the Levant, and cholera reports weekly. Her Majesty's Government had objected to the imposition at the Egyptian ports of quarantine upon vessels from India which had sailed ten days, and had no suspicious case on board. The noble lord, in answer to Sir H. D. Wolff, described the steps taken by the Egyptian Government to stamp out cholera in that country. Sir E. Malet reported that the Government was doing all in its power. The Sanitary Board at Cairo, which was composed of native and foreign doctors, including Dr. Grant and the British Consulate, sat every evening, in conjunction with the Minister of the Interior and General Baker. Doctors, medicines, and food had been supplied to the infected places. Consul-General Cookson reported that at Alexandria a commission had been working hard in inspecting nuisances and suggesting sanitary measures; and he trusted that good results would ensue from the appointment of sub-committees, to whom the Government had left, on Mr. Cookson's representation, great latitude of action. An independent British committee had, moreover, been formed to visit the houses of British and Maltese residents at Alexandria. The infected houses had been isolated by cor-

dons of police. With regard to the steps taken by Her Majesty's Government, a departmental committee had been appointed by the President of the Local Government Board on cholera precautions generally, and a competent medical authority connected with the India Office was about to be despatched to Egypt under the direction of the Board. The Egyptian Government had been informed of the desire of Her Majesty's Government to afford them every assistance in the difficult task they had to perform.—In answer to further questions, the noble lord said the number of deaths, according to the daily returns, was diminishing.

Mr. Fawcett, in reply to Viscount Folkestone, said it was true that a mob of people at Brindisi had prevented the landing there of the Indian mail, and the vessel had been sent on to Trieste. The next steamer was under orders to proceed direct to England. He had communicated with the Privy Council as to precautions against the importation of cholera at Plymouth; but the Post-office authorities took care to have the mail-bags disinfected by soaking them in tar.—Lord Folkestone observed that that would not disinfect the seamen.—Mr. Fawcett replied that the matter was in the hands of the Privy Council.

On Tuesday, in reply to Mr. Macliver and other hon. members, Sir C. Dilke made a lengthy statement as to precautions to be observed at English ports, and observed that quarantine had long been abandoned in favour of medical inspection. The Local Government Board would issue another order in the course of the present week.—Lord E. Fitzmaurice, answering Mr. O'Donnell and Mr. Macfarlane, stated that the quarantine on ships from Bombay, which was imposed by the Egyptian authorities on May 14th, expired on June 27th, and was not re-established. Its imposition was opposed by Mr. Miéville, the British representative on the Egyptian Maritime Sanitary Board, on the ground that cholera was not epidemic in Bombay. Information had been received that cholera was epidemic in Sumatra, but not in Java, nor was any outbreak reported in China. As to the progress of the disease in Egypt, there had been an outbreak at Menzaleh. A report from Mr. Miéville on the whole subject was on its way, and would be presented to Parliament. Her Majesty's Government had not directed the employment of the British army of occupation for the purpose of restraining the spread of the disease. They attached more importance to sanitary precautions than to cordons of soldiers and police.

On Wednesday, in reply to Mr. Lowther, Mr. Gladstone stated that no remonstrances had been received from foreign Powers by Her Majesty's Government with regard to the neglect of quarantine.

On Thursday, in reply to Lord Folkestone, Lord E. Fitzmaurice said the proffered assistance of Her Majesty's Government with regard to dealing with the cholera in Egypt had been refused by Cherif Pasha, who told Sir E. Malet that the Egyptian Government were perfectly able to cope with the outbreak themselves, especially as the amount of disease was diminishing. Notwithstanding that reply, the offer would be renewed, and a medical gentleman holding the rank of surgeon-general, who had had great experience of the cholera in India, would be sent out immediately from this country. He would report to the Cholera Committee of the Local Government Board as to the character of the disease and other material circumstances, and would support Sir E. Malet in advising the Egyptian Government. His services would be placed at the disposal of the Egyptian Government in whatever way they might consider it most desirable to employ his ability, knowledge, and experience. In reply to a further question, Lord E. Fitzmaurice stated that the report of Dr. Mackie, a telegraphic extract from which appeared in to-day's *Times*, had not yet reached the Foreign Office.

Lord Hartington, in reply to Sir W. Barttelot, said he had received by telegraph from Alexandria a report that there was no sickness amongst the troops to cause alarm, and that much fever must be expected in Alexandria at this season. No danger need be apprehended from the nuisances connected with the slaughterhouses, which were two miles to the leeward of the city. The military authorities appeared to be perfectly prepared to deal with any attack of cholera, should it reach the troops.

St. Pancras Workhouse.

On Tuesday, Mr. Hopwood gave notice to ask the President of the Local Government Board whether his attention has been called to the statement of Mr. Walter Dunlop, Medical Officer of St. Pancras Workhouse, that "the inmates numbered about 2000—he had to see every person on admission and visit about 1000 of them daily;" whether this gentleman is the same who asserted that he had vaccinated about 1500 mothers within a few hours after their delivery; whether such numerous and responsible duties can be performed with sufficient care by one man; and whether he has yet expressed, or intends to sanction by, his approval of the vaccination of women within a few hours after their delivery.

Obituary.

JOSEPH EDMUNDSON, M.D.

WITH great regret we record the death of this gentleman, which took place on the 3rd inst. at Enniscorthy, co. Wexford, after a short illness, aged sixty-three. Dr. Edmundson held the post of resident medical superintendent of Enniscorthy District Lunatic Asylum, to which he was appointed about seven years since, having previously occupied a similar post at Castlebar and at Clonmel asylums. Altogether he passed upwards of twenty years in asylum work, and his great tact and practical knowledge rendered him a most efficient officer for the superintendence of a large institution. He took an active part in various matters for the welfare of the community among whom he resided; and a series of lectures on scientific subjects which he delivered for the members of the Young Men's Christian Association were listened to with considerable interest by very large and appreciative audiences. He was worthy of the highest esteem as an upright honourable man, as a skilled physician, and, above all, as a Christian gentleman. He leaves two sons, one of whom is pursuing his medical studies in Dublin.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed the Primary Examination in Anatomy and Physiology at meetings of the Board of Examiners on the 6th, 7th, 9th, 10th, and 11th inst.:—

W. S. Cunliffe, H. E. Winter, G. E. A. Evans, J. L. Thomas, T. C. Pagden, R. G. Smith, C. Christopherson, R. Spear, J. H. White, M. Cheale, and J. W. Cockerill, St. Bartholomew's Hospital; J. J. Weaver, G. H. Lang, W. J. Richardson, B. S. A. Robinson, F. H. Bonnefin, W. C. Anstie, F. W. Gee, E. G. Blaxland, W. Harries, C. J. Parson, and G. K. Pearson, University College; J. A. Ward, C. S. Simpson, E. A. Farr, C. J. Cressey, E. B. Harris, A. Meyrick-Jones, R. Capes, E. S. Blaker, H. A. Reed, and G. H. Reynolds, Guy's Hospital; H. D. Archbutt, P. S. Webster, L. Hamel-Smith, E. B. Chamberlain, W. Davis, B. A. Lewis, S. Mellor, and W. F. Pool, London Hospital; A. L. Marshall and W. H. Brown, Cambridge; S. W. Thompson and C. D. Christmas, Charing-cross Hospital; O. J. Kauffman, Owens College; G. Spear and R. R. Sleman, St. Mary's Hospital; A. H. L. Cox, King's College, Cambridge, and St. Thomas's Hospital; T. Lyons, L. Bathurst, G. E. Rawlinson, and M. J. Finucane, St. Thomas's Hospital; H. O. Preston, R. G. D. Speedy, G. H. Williams, and A. J. Pickthorn, St. George's Hospital; E. H. Biddlecombe, C. P. Crouch, D. T. Davies, and F. H. S. Raven, St. Bartholomew's Hospital; S. H. Seccombe, W. P. West, Guy's Hospital; W. J. Spoor, S. C. Buckland, J. Davis, and F. M. Sealy, Middlesex Hospital; N. J. E. Joly and P. W. Fraser, University College; H. M. Wood, St. Mary's Hospital; C. D. Freeman, H. A. W. Coryn, and A. H. Whicher, Charing-cross Hospital; W. D. Buncombe, J. Wreford, T. E. A. Pearman, and J. G. Rusher, London Hospital; A. Matthey, St. Bartholomew's Hospital; R. C. G. Dill, Cambridge and St. George's Hospital.

ROYAL UNIVERSITY OF IRELAND.—The following candidates have passed the First Examination in Medicine:—

Walter Beck, P. J. Burke, R. P. Byrne, J. Caldwell, M. Caldwell, S. B. Carlisle, I. Clifford, J. R. Connor, T. C. Donaldson, J. E. Duffy, George Elliott, W. Hackett, W. L. Hawthorne, W. B. Hayes, W. S. Jordan, P. Keelan, F. Keyes, C. R. Leader, E. A. Lightburne, J. Lockhart, J. Macnamara, J. Mockler, J. W. Obre, Thomas Obre, T. O'Callaghan, D. O'Leary, T. O'Riordan, F. Townsend.

The undermentioned have passed the Second Examination in Medicine:—

S. Alexander, J. Barron, W. Bigger, A. Blackwood, W. Briand, W. Cameron, J. Corbett, H. Cummins, J. Daly, A. Drake, S. Dunlop, T. Dwyer, R. English, W. Fogerty, W. Gray, J. Haines, J. Hurson, J. Jamison, J. Johnston, W. Kirk, V. Lennan, M. M'Carthy, D. M'Donnell, E. M'Gragh, J. M'Master, J. Meenan, M. Moloney, J. Moore, J. J. Nagle, A. Nash, J. O'Brien, P. O'Hara, E. Pooler, G. Radmore, J. Shaw, A. Wolfe, R. Wolfe

APOTHECARIES' HALL. — The following gentlemen passed the examination in the Science and Practice of Medicine, and received certificates to practise, on July 5th:—

Beardmore, George Russell, Upper-street, Islington.
Bennett, Frederick Thomas, Instow, North Devon.
Barrows, Walter Horncastle, Cobden-road, Chesterfield.
D'Aguiar, João Gomes, Demerara.
Gostling, Thomas Preston, Lady Margaret road.
Hentsch, George Frederick, Richmond-road, Barnsbury.
Kitching, John Lea Walton, the Infirmary, Derby.
Pauli, William Kirman, Luton, Bedfordshire.
Power, Henry d'Arcy, Chariwood-street.
Sutton, Henry Martyn, Lambeth-palace-road.
Whicher, Jas. Chas. Francis, Westcombe Park, Blackheath.
Willett, Edgar William, Great Ormond-street.
Wingrave, Thomas, Hemel Hempstead, Herts.

The following gentleman also on the same day passed the Primary Professional Examination:—

Bradshaw, William Lucknow, Belfast Royal Hospital.

AT an inquest held at Bristol on Wednesday on the body of Ruth Sollary, a girl of fifteen, the medical evidence showed that she had died through accidentally swallowing a pin while at school.

THE Emperor William has promised 250,000 marks to found a large German hospital on the island of Norderney, in the German Ocean, if an equal sum is made up by private subscription.

MEDICAL MAGISTRATE.—Mr. E. Lister, L.R.C.P.Ed., M.R.C.S., L.S.A. (retired), of Swarthdale, Ulverston, has been placed on the Commission of the Peace for the County of Lancaster.

ON the 7th inst. the body of Edward Wagstaff Robertson, formerly medical superintendent of the Royal Infirmary, Aberdeen, was found in the Mersey, near Little Sutton, Cheshire.

NORWICH HOSPITAL.—It is understood that the Duke and Duchess of Connaught will visit Norwich on Monday, August 20th, for the purpose of inaugurating the new hospital buildings in that city. A fancy bazaar in aid of the hospital will be held on the occasion.

THE new Chelsea Hospital for Women was formally opened in the Fulham-road this week by the Duchess of Albany. Her Royal Highness was accompanied by the Duke of Albany, and a large number of aristocratic visitors were present on the occasion.

THE CONTAGIOUS DISEASES ACTS.—The Home Secretary has consented to receive a joint deputation from the Canterbury, Dover, Maidstone, Eltham, Sheerness, and other boards of guardians, and also representatives appointed by the municipal authorities of the various Kentish towns affected by the withdrawal of the operation of the Contagious Diseases Acts.

THE annual summer fête in aid of the funds of the Earlswood Asylum for Idiots will be held in the grounds of the institution to-day (Saturday). Music will be provided by the band of the Coldstream Guards, and, in addition to other items of amusement provided for the enjoyment of visitors, recitals on the grand organ will be given by Mr. James Hallé.

DURHAM UNIVERSITY MEDICAL GRADUATES' ASSOCIATION. — The following officers were on the 4th inst. elected for the ensuing year:—President: Dr. Philipson. Vice-Presidents: Drs. L. Armstrong and Travers. Secretaries: Drs. Mears and Milson. Council: Drs. Arnison, Bowman, Drummond, Bedford Fenwick, Fielden, Goldsmith, Morton Porter, Tyson, W. T. Wilson, Gibb, and W. Robinson.

ST. MARY'S HOSPITAL.—The festival dinner in aid of the funds of this hospital was recently held, the Lord Mayor presiding. It was stated that the proposed extension of the hospital, for which a legacy had been left, would require an increase in the income of between £2000 and £3000. The income required is £15,000, but the sum at the disposal of the hospital from investments is only £1190. The average number of in-patients received each year is about 2000, the out-patients numbering 23,000. Donations amounting to £2367, and new annual subscriptions amounting to £81, were announced during the evening.

A BUTCHER of Wrexham, named Edward Akerman, was recently charged at the borough police-court, under the Public Health Act, with having certain diseased meat in his possession for the purpose of selling it for human food. The inspector of nuisances said that on July 1st he found four pieces of beef in the public slaughterhouse which belonged to the defendant. They were totally unfit for use. The magistrates fined the defendant £5 and costs.

BOSCOMBE PROVIDENT INFIRMARY AND COTTAGE HOSPITAL.—At the annual meeting of the friends of this institution, held at Bournemouth last week, a gratifying report of its position and work was presented. The cases of illness attended by the resident medical officer at patients' homes numbered 514, whilst 446 sufferers had attended as out-patients. The sum received from the former class was £241, and that from the latter £124. The income derived from donations and subscriptions amounted in the year to £368.

THE ROYAL RED CROSS.—On the 5th inst., at Windsor, several of the nurses who attended the sick and wounded during the Egyptian and Zulu campaigns received from the hands of Her Majesty the decoration of the Royal Red Cross. The names of the recipients of the honour are given in the *Court Circular* as follows:—"Under Clause 4 of the warrant: Viscountess Strangford and the Hon. Lady Loyd-Lindsay. Under Clause 5 of the warrant: Mrs. Deeble, Miss A. E. Caulfield, Miss H. Stewart, Mrs. M. A. Fellowes, Miss H. Campbell Norman, Miss B. Story, Miss E. Wheldon, and Miss J. M. Gray."

BRIGHTON SOCIETY FOR NURSING THE SICK POOR. A lecture in connexion with this Society was delivered at Brighton on the 28th ult. by Dr. Gulliver, assistant physician at St. Thomas's Hospital; Dr. Taaffe, medical officer of health for Brighton, presiding. This Society, it was pointed out, deserved every support, since dispensaries and out-patients' departments at hospitals made no provision for nursing the sick poor, and also because the Association, in addition to providing nurses and seeing that the doctor's orders were carried out, secured to the sick such comforts as the funds would allow.

FRAUD ON THE HOSPITAL SUNDAY FUND.—At the Central Criminal Court on the 28th ult. John Albert Easterbrook, aged seventeen, pleaded guilty to attempting to obtain collections from several ministers by representing that he was authorised by the Secretary of the Metropolitan Hospital Sunday Fund to receive the money. It appeared that the prisoner sent to several clergymen of the Church of England a circular purporting to be signed by the Secretary of the Fund, stating that their collections in aid of the Fund would be called for. Mr. Custance, however, was communicated with, and the prisoner was given into custody. The Recorder sentenced him to one month's imprisonment.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning at the latest.*

BATE, HENRY HELE, L.R.C.P.Ed., L.R.C.S.Ed., L.S.A.Lond., has been appointed Medical Officer for the Hindon District of the Tisbury Union, vice Holdsworth.

BICKLE, LEONARD WATKINS, L.R.C.P.Lond., M.R.C.S., has been appointed Resident Medical Officer to Queen Charlotte's Hospital, vice Hardy, resigned.

BRADY, J. BRYAN JOSEPH, L.K.Q.C.P.I., L.R.C.S.I., has been appointed Honorary Medical Officer to the North Dispensary, Liverpool.

BRYAN, FRANCIS CHARLES, M.R.C.S., L.S.A.Lond., has been appointed Medical Officer for the Third District and Workhouse of the East Preston Union, vice Willan.

BUTCHER, Mr. JOHN O., has been appointed a House-Surgeon to the Dental Hospital of London.

COLLIER, W., M.A., M.D.Cantab., M.R.C.S., has been appointed House-Physician to the Wolverhampton and Staffordshire General Hospital.

CRIPPS, C. COUPER, M.B., M.S.Durh., M.R.C.S. (late Assistant House-Surgeon of the Liverpool Infirmary for Children), has been appointed House-Surgeon to the London Lock Hospital, Male and Out-patient Department.

DAVIES, THOMAS, L.R.C.P.Ed., M.R.C.S., has been appointed Medical Officer for the Machynlleth District of the Machynlleth Union.

FAGGE, CHARLES HILTON, M.D.Lond., M.R.C.S., has been appointed Physician to the Deaf and Dumb Asylum.

FRAZER, WILLIAM, M.D., has been appointed one of the Honorary Physicians to St. Mary's Home for Invalid Ladies, Bournemouth.

HAWKINS, FRANCIS H., M.B., has been appointed Resident Clinical Assistant to the Brompton Hospital for Consumption and Diseases of the Chest.

HEYGATE, W. N., M.R.C.S., L.S.A.Lond., has been appointed Honorary Medical Officer to the Eastern Dispensary, Bath, vice F. K. Green, resigned.

JONES, OWEN CLAYTON, B.M.Oxon., has been appointed House-Physician to the London Hospital.

LAXTON, T. LOWE, L.R.C.P.Ed., M.R.C.S., has been appointed Medical Officer for the Fulstone District of the Huddersfield Union.

MALET, HENRY, M.D., has been appointed Medical Officer for the Borough of Wolverhampton.

PAULLEY, JOB NATHANIEL LEGGE, M.R.C.S., L.R.C.P.Ed., has been appointed Medical Officer for the Fourth District of the Depwade Union.

PRANGLEY, HENRY JOHN, M.R.C.S., L.R.C.P.Lond., L.S.A.Lond., has been appointed Medical Officer to the North Surrey District Schools, Anerley, vice Dr. Allen Duke, resigned.

SWIFT, H., M.B.Cantab., M.R.C.S., has been appointed Junior Resident Medical Officer to the Hospital for Sick Children, Great Ormond-street.

UNICUME, THOMAS, M.R.C.S., has been appointed Medical Officer for the Middlezoy District of the Bridgwater Union.

WEBB, MALCOLM, M.B.Lond., M.R.C.S., has been appointed Resident Medical Officer to the Barnes Convalescent Hospital at Cheadle.

WOOD, W. H., M.R.C.S., has been appointed Medical Officer for the Nunney District of the Frome Union.

YOUNG, JAMES VANCE, M.D., M.Ch. Roy. Univ. Ireld., L.S.A.Lond., has been appointed Government Medical Officer, Police Magistrate, and Coroner for the Grenadine Islands, in the Colony of St. Vincent, West Indies, and one of Her Majesty's Justices of the Peace for the Government.

Births, Marriages, and Deaths.

BIRTHS.

DAVIES.—On the 3rd inst., at Albert-terrace, Jarrow-on-Tyne, the wife of H. W. Davies, M.R.C.S., L.R.C.P.Ed., of a daughter.

MOLYNEUX.—On the 10th inst., at Athole House, South Wimbledon, the wife of M. J. Molyneux, L.F.P.S.Glas. &c., of a son.

SEAMAN.—On the 5th inst., at Ledbury-road, W., the wife of W. C. Seaman, M.D., late Surgeon-Major 72nd (Duke of Albany's Own) Highlanders, of a son.

WADE.—On the 3rd inst., at the County Asylum, Wells, Somerset, the wife of A. Law Wade, M.D., Medical Superintendent, of a son.

WOOD.—On the 6th inst., at Corsham, Wiltshire, the wife of Arthur G. Wood, M.R.C.S., L.R.C.P., of a son.

MARRIAGES.

BOOKLESS—LANGHAM.—On the 3rd inst., at St. Mary's Church, Eastbourne, James Pitcairn Bookless, M.D., of Wimbledon, Surrey, to Mary Elizabeth, eldest daughter of James George Langham, Esq., of Westdown, Eastbourne, Sussex.

BRAHAM—WILLING.—On the 5th inst., at St. Paul's Church, Grove-park, Chiswick, by the Rev. Nevison Loraine, Vicar, assisted by the Rev. C. F. Coutts, Lieut.-Colonel Augustus Frederick Braham, formerly 15th (King's) Hussars, and late Staff-Paymaster, A.P.D., of Oriel House, Winchester, to Constance de Bézay (Cosie), third daughter of Dr. G. F. Brutton Willing, of the Woodloes, Grove-park, Chiswick.

CLARKE — TAYLOR. — On the 5th inst., at St. Stephen's, East Twickenham, by the Rev. W. M. Johnston, M.A., Vicar, assisted by the Rev. John Bell, M.A., and the Rev. B. Savory, B.A., of St. George's, Hanover-square, Ernest Clarke, M.B., B.S., of 21, Lee-terrace, Blackheath, to Kate Litton, second daughter of John Hirst Taylor, Esq., of Cambridge-park, Twickenham, and late of Grove House, Windermere. No cards.

COLLIER—MOORE.—On the 5th inst., at Limavady, by special licence, John T. Collier, M.D., M.Ch., &c., of Lincoln, to Melinda, daughter of George Moore, Esq., of Limavady.

HARRISON — WILCOCKS. — On the 10th inst., at St. James-the-Less, Plymouth, Garland W. L. Harrison, Fleet Surgeon, H.M.S. *Cambridge*, eldest son of the late G. F. B. Harrison, Surgeon, of Devonport, to Alice, eldest daughter of J. Carrall Wilcocks, of Caer Badden-terrace, Plymouth.

DEATHS.

EDMUNDSON.—On the 3rd inst., at Enniscorthy, Joseph Edmundson, M.D. St. And., aged 63.

JEWESBURY.—On the 3rd inst., at St. Ives, Cornwall, Charles Frederick Jewesbury, M.R.C.S., L.R.C.P. (late of Ceylon), elder son of Fredk. C. Jewesbury, of Longford, Gloucester, aged 33.

TYLECOTE.—On the 6th inst., at Sandon, Staffs., Emily Sarah, wife of J. H. Tylecote, M.D.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

BOOKS ETC. RECEIVED.

ALLEN, E. W., London.
Doctors and their Patients. By Darwin Gisborne. pp. 73.

BAILLIÈRE, J. B., ET FILS, Paris.
Traite Clinique de l'Inversion Utérine. Par Prof. P. Dennecé. pp. 645. Avec 103 Figures.

BAILLIÈRE, TINDALL, & COX, London.
Vichy and its Therapeutical Resources. By Prosser James, M.D. Fifth Edition. pp. 84.

BLACKIE & SON, London.
Elementary Text-book of Physics. By J. D. Everett, M.A., D.C.L., F.R.S. pp. 316. With numerous Illustrations. pp. 94.

BOGUE, DAVID, London.
The Standard of Value. By W. Leighton Jordan, F.R.G.S. Third Edition.

CHURCHILL, J. & A., London.
The Student's Guide to the Practice of Medicine. By Matthew Charteris, M.D. Third Edition. pp. 301. With Illustrations.
Guy's Hospital Reports. Edited by H. G. Howse, F.R.C.S., and Frederick Taylor, M.D. Vol. XLI. pp. 515. With Plates.
The Mineral Waters of Aix-les-Bains and Marlioz. By Leon Blanc, M.D. pp. 60.
The Electro-Magnet and its Employment in Ophthalmic Surgery. By Simeon Snell. pp. 94.
A Few Words upon Anæsthetics. By R. T. Freeman, L.R.C.P. &c. pp. 48. With Illustrations.
Medical Guide to the Mineral Waters of France and its Watering Stations. By A. Vintras, M.D. pp. 334.

KIMPTON, HENRY, London.
Experimental Pharmacology. By Prof. L. Hermann. Translated, with Notes and Additions, by R. M. Smith, M.D. pp. 190. With Illustrations.

LEWIS, H. K., London.
Practical Histology and Pathology. By Heneage Gibbes, M.D. Second Edition. pp. 154.
The Filaria Sanguinis Hominis, and certain New Forms of Parasitic Disease in India, China, and Warm Countries. By Patrick Manson, M.D., C.M. pp. 186. With 10 Plates.

MACMILLAN & CO., London.
In the Land of the Lion and Sun, or Modern Persia. By C. J. Willis, M.D. pp. 446.

RELPE BROTHERS, London.
Latin Prose Composition for Senior University Local Students. By R. M. Millington, M.A. pp. 160.

SPON, E. & F. N., London.
The Municipal and Sanitary Engineer's Handbook. By H. Percy Boulnois, M.I.C.E. &c. pp. 394. With Illustrations.

SPRINGER, JULIUS, Berlin.
Handbuch der Gesammten Arzneimittellehre. Von Dr. Med. Theodor Husemann. In zwei Bändeh.

Second Annual Report of the State Board of Health, New York.—The Transvaal and Bechuanaland; by Dr. G. B. Clark.—Athetosis; by W. A. Hollis, M.D.—Ueber Hemialbumosurie; von G. K. Ter-Gregoriantz.—Case of Enteric Fever which had two Relapses; by Dr. R. W. Forrest.—Effects of some Drugs in Lactation on Nurse and Nurseling; by T. M. Dolan, F.R.C.S.—Incipient Insanity among the Better Classes; by Fraser Nicolson. (Renshaw.)—Babies, how to Rear them; by F. A. Fawkes, F.R.H.S. (Sonnenschen, London.)—Iniquities of Lunacycraft, and Hocus-pocus by three Learned Judges; by a Great Victim to them. (Melbourne.)—Good Words, Sunday Magazine, for July. (Isbister.)—Boy's Own Paper, Girl's Own Paper, Leisure Hour, Sunday at Home, Friendly Greetings, for July.—Longman's Magazine, July.—Index Medicus, Vol. V., No. 5.—Contributions to Operative and Clinical Surgery; by Jordan Lloyd, F.R.C.S.Eng. (Cornish Brothers, Birmingham.)—Ueber die Behandlung der Subcutanen Querfracturen der Patella; von Anatol Hentzelt.—The Great Eastern Railway Company's Tourist's Guide to the Continent.—Die Entstehung und Behandlung der Kurzsichtigheit; von Dr. O. Paulsen.—Report of the Committee on Ophthalmology of the Ontario Medical Association.—Handbook of Medical Electricity; by Dr. A. M. Roseburgh.—Fish, how Caught, Cooked, and Cornered.—Lewis's Histological Labels.—Der Arzt als Sachverständiger vor den englischen Gerichten; von Dr. E. Zillner.—Sulla Cura delle Granulazioni Palpebrali; del Dott. G. B. Arnoux.—The Amount of Protection afforded by Vaccination; by H. Tomkins, M.D., B.Sc.—The Hygienic Management of the Catarrhally Predisposed; by Edw. Woakes, M.D.Lond.—Ueber die Excision des Ulcus durum; von Dr. O. Lassar.—Notes on Feeding Cholera Patients; by T. M. Lownds, M.D.—Des Hémorrhoïdes de la Vessie et de l'Hématurie Hémorrhoïdale; par le Dr. Zambaco.—De la Fièvre Typhoïde, ses Causes; par le Dr. Rezard de Wouves.—On a Prolonged Case of Enteric Fever; by Robert Park, M.D.—Sunspottery, or What do we Owe to the Sun? by J. A. J. Oliver.—On the Rhythm of the Heart of the Frog, and on the Nature of the Action of the Vagus Nerve; by W. H. Gaskell, M.D.—On the Innervation of the Heart, with Special Reference to the Heart of the Tortoise; by W. H. Gaskell, M.D.—Balneologische Studien ü. Wiesbaden; von Dr. E. Pfeiffer.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, July 12th, 1883.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
July 6	29·85	S.	66	58	118	75	54	..	Fine
" 7	29·85	W.	63	59	110	73	59	..	Cloudy
" 8	29·88	W.	69	62	119	76	57	..	Fine
" 9	29·80	S.W.	62	60	116	75	60	·16	Overcast
" 10	29·90	W.	64	58	111	78	55	..	Fine
" 11	29·70	S.W.	63	58	111	71	57	..	Cloudy
" 12	29·59	W.	63	60	82	64	68	..	Cloudy

Notes, Short Comments, and Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe, or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

THE BOARDING-OUT SYSTEM.

IT is pleasant to learn from the recent remarks of Lord Carrington that there are no legal objections to a tolerably wide extension of the boarding-out system as applied to pauper children. The matter rests practically with the guardians of unions. They are empowered to pay a small but possibly sufficient sum for maintenance, and, under proper restriction, they may find families in which to place the children under their charge. It is, however, desirable that one restriction which exists—namely, that which requires that children should be located within the limits of the union—should be removed. Provided always that adequate control by periodical inspection can be secured, there should be no limit as to the placing of children in homes which are suitable.

Mammae.—We must adhere to our rule, as stated in a general notice above.

Dr. A. Tischler.—Parkes' Hygiene, sixth edition (Churchill).

"AN OBSCURE CASE."

To the Editor of THE LANCET.

SIR,—In answer to Mr. Smeal's query, I should imagine his patient is suffering from lymphadenoma. It would be interesting to know his age, and if the glands were at first isolable from one another; but now that they have attained a large size, have they fused together? As the patient's health is good, the best treatment is excision of the mass. During my house-surgeoncy at St. Thomas's Hospital there were several cases of removal (antiseptically) of large lymphadenomatous growths from the neck, and although in some instances it was found necessary to expose rather freely the carotid artery and internal jugular veins, the results were all excellent—viz., the substitution of a linear cicatrix for a huge swelling of the neck.—Yours faithfully,

W. A. DUNCAN, M.D., F.R.C.S. Eng.

Lambeth Palace-road, S.E., July 9th, 1883.

To the Editor of THE LANCET.

SIR,—I should expect great benefit in this case from the external application of oleate of mercury (ten per cent.) once a day and the internal administration of calcium sulphide (quarter of a grain every four hours). The description of the case, as given by Mr. Smeal in THE LANCET of July 7th, points to its being one of lymphoma, and the above treatment has proved in my hands very successful in such cases.

I am, Sir, yours truly,

WM. THOS. JACKMAN, M.R.C.S., &c.

Coggeshall, Essex, July 7th, 1883.

*** In reference to the case in question, Mr. Smeal writes:—"Latterly the glands in the axillæ have enlarged a little, but nowhere else lower down, and there is anasarca of both arms. The treatment you kindly suggest has been tried."

RECENT SUNSHINE.

IT appears from returns, issued by the Royal Observatory at Greenwich, of observations derived from Campbell's sunshine instrument, that during the three months ending June last, 474·6 hours of "bright sunshine" were recorded. As the sun was above the horizon 1391·5 hours during the three months, it follows that the recorded bright sunshine was equal to rather more than 34 per cent. of its possible duration. It may be noted, however, that the amount of recorded sunshine last quarter was very slightly above the average amount in the corresponding periods of the six years 1877–82, and was considerably below the amounts recorded in the June quarters either of 1881 or 1882, which were 514·0 and 510·6 hours respectively. Compared with the return for the corresponding months of 1882, the recorded sunshine showed a considerable deficiency in April and May, and an excess in June. The mean temperature at Greenwich slightly exceeded the average in each of the three months of last quarter, and the amount of rain measured at the Royal Observatory was 4·3 inches, and one inch below the average amount for the corresponding months of sixty-one years.

A Country G. P.—The case mentioned by our correspondent is somewhat painful and difficult, but our opinion is that he did his duty fully in explaining the nature of the case to the patient and friends, and likewise to the locum tenens. The responsibility of not acting upon our correspondent's suggestion must be divided between A and his patient and the patient's friends. Possibly A's share of the responsibility is greater than that of the patient or his friends, but it is not certain from the statement that A was solely to blame for our correspondent not being further consulted or his advice followed.

"OATMEAL *v.* RICKETS."

To the Editor of THE LANCET.

SIR,—Dr. Whittle, of Brighton, referring to an article of mine on condensed milk in THE LANCET of June 23rd, while agreeing on the whole with what I said, states that he must dissent from my views on the influence of oatmeal diet on infants. He states that there is abundant clinical proof that meal is in many cases digestible from earliest infancy, that it is capable of maintaining a child in robust health, and that he does not believe that it is ever concerned in the production of rickets, but that it is an important agent for the relief of that condition. This statement, coming as it does from one who has had experience of children, is an extremely interesting one. It is so directly opposed to what experience I have had myself, and to that of others better able than myself to judge, that I hardly know what to say about it. Certainly in London a very large proportion of rickety children have been fed on oatmeal or flour gruel, and the rickets improves on changing the diet. Besides, there seems to be a distinct physiological reason against the statement Dr. Whittle makes—viz., that the salivary glands, the secretion of which transforms starch into soluble sugar, are undeveloped in infants.

In the debate on rickets at the Pathological Society in 1881 an interesting letter was read from Dr. Everard, saying that among the natives in Madras he had only seen three cases of rickets, but that these were infants who had been fed on rice and arrowroot.

No doubt London children are more prone to rickets than country children, but even in the country oatmeal I believe can cause rickets. In two summer holidays in Satherlandshire, far from any town, I was surprised to notice how many of the little barefooted children had bandy legs, and I have no doubt of the cause—"Tenui musam meditantur avenâ"—they learn their lessons on their oatmeal.

I am, Sir, yours, &c.,

F. D. DREWITT, M.A., M.D. (Oxon.).

Brook-street, Grosvenor-square, W.,
July 7th, 1883.

F.R.C.S.—The attendance of the Fellows of the College of Surgeons at the election of Members of Council on the 5th inst. was the largest on record; 370 recorded their votes for the respective candidates, of whom 245 resided in the metropolis and within a radius of eight miles.

R. M.—Roberts' or Bristowe's Medicine; Bryant's or Erichsen's Surgery; Playfair's or Leishman's Midwifery; Meigs and Pepper's or Eustace Smith's Diseases of Children.

INTENSE ITCHING.

To the Editor of THE LANCET.

SIR,—I have at present under my professional care an aged lady whose case is indeed a pitiful one, and as I have for a considerable time employed various remedies in vain, I beg now to solicit the advice of my brethren through your columns.

My patient, who has recovered wonderfully from a hemiplegic seizure, and is now taking carriage exercise, is tormented with a cutaneous itching, which makes her life miserable, and her nights a terror to anticipate; beyond this, and troublesome constipation, I may say her health is perfect. The itching is unaccompanied by any lesion of the skin, as far as I have been able to observe, but the marks of the patient's nails are everywhere visible; the feeling changes its site frequently, and no part of the body has escaped, even the scalp having been affected.

I find nothing wrong in the urine, but there has been in former years a peculiar irritability of the mucous membrane, producing catarrh, without obvious cause.—I am, Sir, yours very truly,

Thurso, N.B., July 7th, 1883. JOHN CRAVEN, L.R.C.P., &c.

THE PROPHYLACTIC POWER OF COPPER.

DR. BURQ, whose researches on the prophylactic virtues of copper in cholera are well known, has followed up his investigation of the merits of the drug by a digest of the figures relating to the last epidemic of typhoid fever which occurred in Paris. He shows that the 40,000 men and women employed in working copper would, if the death-rate among them had been, as with the rest of the population, 1·3 per thousand, have lost fifty of their number. As a matter of fact only ten died, and seven of these were very little exposed to swallowing the copper dust, in which, as Dr. Burq believes, the healing virtues of copper reside. Dr. Burq draws from all these facts the conclusion that the organism of workmen exposed to the action of copper undergoes a progressive cupric impregnation opposed to the development of the microbes of infectious diseases. He proposes, moreover, to verify this conclusion by studying the action of salts of copper upon the microbes cultivated by M. Pasteur.

M.R.C.S.—We are obliged to our correspondent for the circular, which is very bad. It is so bad that, out of regard for the respectable members of our profession named, and who seem to have the misfortune to be related to the individual who advertises himself, we decline inserting it.

"OBSCURE AFFECTION OF THE FEET."

To the Editor of THE LANCET.

SIR,—In THE LANCET of April 28th, just to hand, I notice a communication from Dr. J. M'Intyre, Avoca Circle, Natal, respecting an "obscure affection of the feet," which has, he says, "perplexed" him in his practice amongst the Asiatics here; and it is all the more perplexing since malingering is the order of the day with the coolie.

I have come across many cases of the same affection, and from the frequency of its occurrence, the peculiarity of its nature, the difficulty of forming a diagnosis, and the absence of any case recorded in any text-book that I possess, I have been induced to pay some little attention to the affection. My first experience of it was in China amongst the natives there, where it is by no means an uncommon complaint, but only limited, I think, to a certain class—labourers. It is caused in them by standing on marshy ground where rice is cultivated. Gold-diggers are subject to the same complaint, and I have been told so are persons engaged in the washing of sheep, &c.

I am satisfied the affection is brought on by some occupation which necessitates standing in fresh water, or standing on damp or wet ground while the rest of the body is overheated by a tropical sun. Coolies who arrive here during the summer months—the wet season—are more susceptible to this ailment. The affection is, in my humble opinion, in most cases rheumatism of the plantar fascia; in other cases it is due to neuralgia of the plantar nerves and anæmia of the parts from contraction of the capillaries and bloodvessels. In other cases, again, it is due to a local form of urticaria complicated with syphilis. In this form there is a determination of blood to the parts, possibly by a temporary paralysis of the vaso-motor nerves; the patient complains of an intense burning itching feeling, which is only relieved by placing the feet in cold water. I have known a patient who could not sleep at night without placing his feet in water. The urticaria which affects the palms of some dyspeptic persons is very much like this affection.

As regards treatment, I have found the following to answer successfully. Direct the patient to place his feet in hot water, to which a couple of spoonfuls of mustard are added, the bicarbonate of soda being substituted in urticaria. Then rub the feet dry with a rough towel, and in the interval anoint the feet repeatedly with warm cod-liver oil, also wrap the feet in cotton wadding, and order boots and thick socks to be worn; damp and cold are to be avoided. Abstinence from fish, nuts, curry, and hot condiments, all of which the coolie consumes as his natural food, is necessary. A liberal diet must be supplied. In the rheumatic and neuralgic forms I have, in addition, given phosphorus and tonics. Dry cupping, Corrigan's button, and electricity to the soles of the feet are of great benefit. If there is a trace of syphilis, the usual specifics must be resorted to.—I am, Sir, yours faithfully,

RICHMOND R. ALLEN,
Maritzburg, Natal, June 1st, 1883. Indian Medical Officer.

A Young Father.—The opinion of the medical profession is not quite unanimous on the subject; but our correspondent had better be guided by the advice of his medical attendant.

MALT AND ASTHMA.

To the Editor of THE LANCET.

SIR,—It would be interesting to know the experience of prescribers of preparations of malt as to the conduct of such when ordered for persons prone to asthma. I am led to court such inquiry because a lady patient of mine declares that the first dose of a well-known malt extract caused her most distressing spasm and dyspnœa; indeed, to use her own expression, "She felt as though she must die of suffocation." She is a pale, anæmic subject, passed the climacteric, and for many years subject to bronchial asthma, the attacks being exceptionally severe at this time of year. She has no nasal catarrh nor sneezing, but much lacrymation. No evidence of cardiac nor of renal mischief. It was prescribed for her as "a nutriment and general tonic" by a London physician. I may add that all preparations of barley produce very distressing effects upon this lady. I am, Sir, yours truly,

Coventry, July 9th, 1883. D. M'VEAGH, M.K.Q.C.P., &c.

MARRIAGE OF COUSINS.

WE have on many occasions answered letters on this subject. It is only necessary to state that when cousins are healthy, and have no proclivity to disease, they may safely marry, but that the existence of strongly marked scrofulous or other taint in the blood should prevent such marriages. But it should also be a reason for the non-marriage of those who are not in any way related.

Assistant Surgeon.—With the abolition of his office the connexion of our correspondent with the hospital ceases, and the election of the two surgeons is an open one. At the same time, the facts of "Assistant Surgeon's" previous election, and of his services to the institution in another capacity, ought to secure his election to the post of surgeon without putting him to any trouble.

"SCOTCH DIPLOMAS."

To the Editor of THE LANCET.

SIR,—To me it is less amusing than it is absurd to read the opinions of "L.M. & S." and his three friends anent the relative equality of London and Scotch diplomas.

Setting aside the question, and I am perfectly content that it should remain a question, of the superiority of English diplomas, or even Bombay diplomas, I beg to assert, in support of Scotch degrees, that they are second to none and, I venture to add, hold an immeasurably higher standard than any diploma, wherever it may come from. Should your correspondent doubt the accuracy of my assertions, I should recommend him, instead of consulting the ideas and opinions of the inhabitants of Brazil, Canada, Cape of Good Hope, and goodness knows where, to come a little nearer home for the necessary information, and make himself acquainted with the verdict of the commissioners appointed a few years ago to report on the efficiency of teaching in, and the universally recognised high standard of, the Scotch schools of medicine and their degrees.

I do not care to occupy more of your valuable space in further discussing the matter, save casually to mention that the exhibition presented by previously doubly qualified men at examinations for the despised Scotch degrees has not by any means on all occasions been sufficiently commendable to acquire for them the assumedly coveted M.B. and M.C. I am a constant reader of THE LANCET, but must beg leave to express my non-concurrence with the opinions of "L.M. & S. Bombay." I am, Sir, yours obediently,

July 7th, 1883. M.B., M.C. ABERDEEN.

To the Editor of THE LANCET.

SIR,—On reading over the letter of "L.M. & S. Bombay" I could not but imagine that he did not fully recognise the difference between the Edinburgh University and the Edinburgh corporations. His first statement that "Edinburgh diplomas are regarded as being far inferior to those obtainable at London" is undoubtedly true, but when he makes such glaring assertions as, "none have gone to Edinburgh or any other Scotch University, for we think that the degree obtained in Scotland is not a whit superior to the Bombay L.M. & S.," and, again, that the people he has interviewed, who come from Brazil, Canada, the United States, and the Cape of Good Hope, agree that, "a medical man possessing London diplomas is considered far superior to one who has taken his degrees in Scotland," one would conclude that he was quite ignorant of the subject on which he speaks, or, at least, takes a very one-sided view of the matter, as an Edinburgh degree would certainly be more highly estimated than one from the University of Bombay, also a Scotch degree (obtained by residence and examination) would, I think, outweigh a London diploma. If, as he says, people from Brazil, Canada, the United States, and the Cape of Good Hope estimate London diplomas more highly than Edinburgh degrees, how is it that so many natives of these places come to Edinburgh for a degree in preference to going to London for a diploma? If "L.M. & S. Bombay" can satisfactorily answer this question he will very much enlighten

July 9th, 1883. AN EDINBURGH UNDERGRADUATE.

Dr. Esalt.—Thanks. We had already received the information from our Dublin correspondent.

UNITED TWINS.

To the Editor of THE LANCET.

SIR,—I venture to forward you particulars of a most unusual case of midwifery. At midnight a few weeks ago I was called to Mrs. W——, in her second labour. I found the os three-parts dilated, and strong expulsive pains at regular intervals; membranes ruptured; knee presenting. I drew down one foot and then another, expecting the case to be soon terminated as a footling. This not taking place, I made a digital exploration, and found another foot, which was soon expelled, and shortly after another, making four in all. Legs and knees followed. On making further examination, I found the twins to be united anteriorly for about three inches from the umiform appendix downwards. No movements taking place in the legs, which were quite livid, I concluded the children were dead, and resolved to separate them, which I did by passing a scalpel, guarded by my left forefinger, to the upper edge of the uniting band, thus severing it. One child receded, and, as expulsive pains continued, the other was soon born, followed by its twin quickly after. The case was terminated at 4.30 A.M. The children were males. The mother had gone her full time, and has made a good recovery.—I am, Sir, yours faithfully,

FREDK. S. HARDWICK, M D

Needham Market, Suffolk, July 3rd, 1883.

H. J. J.—It is probable that the best American degrees will be registrable under the new Act. Two conditions will be indispensable—the first, that the degree shall qualify for practice in the country in which it is granted; the second, that the Medical Council shall be satisfied that it represents an amount of education equal to that required for passing the examination of the new Board to be established.

ARTIFICIAL LIMBS.

To the Editor of THE LANCET.

SIR,—A considerable number of persons, who have been the subjects of amputation in London and provincial hospitals, and also under the care of various surgeons as private cases, have been examined by me at the Surgical Appliance Society for the purpose of advising what form of artificial limb would be best suited for each particular case. The result of these examinations leads me to think that the surgeon sometimes forgets the future of the patient; he devotes much care to his recovery and the production of a good stump to look at. The surgical authorities advise saving as much as possible, on the principle that the less loss of substance the less risk; accordingly conservatism is carried to an extreme, and operations are performed so as to leave as long a stump as possible. The long stump left in these cases with its large extremity is difficult to fit into the usual artificial case. It would have been better for the patient to have a little shorter stump, and the increased risk would be hardly appreciable. Most of the writers on surgery pass over the question of artificial limbs with scant notice, such as "it is better to leave the application of artificial appliances to the mechanical artist."

The surgeon who performs his operation in such a way as to leave what may be called a workable stump will earn the gratitude of the patient. The cost of the usual artificial limbs is so high that they can only be obtained by the wealthy, and there is constant expense in repairs. Artificial limbs suitable for mechanics, clerks, and labouring men have long been wanted at a reasonable price. They have been obliged to put up with a pin-leg or a hook-arm, which are neither very efficient nor ornamental. Through the kindness of Lieut.-General Maxwell, specimens of the artificial arms and legs invented by the Count de Beaufort were sent to the Surgical Appliance Society with the view of meeting this long acknowledged want. The artificial arm is extremely light, is securely attached, and looks most natural; with it men can perform most of the ordinary functions required of the hand. The artificial Beaufort leg is made in several forms, according to the position of the operation. In a case of amputation above the knee, with a fair stump a man can walk without a stick, and can sit down comfortably without having an inconvenient projection as in the ordinary pin-leg. In amputation below the knee the artificial Beaufort leg will supply the place of the lost member in a truly wonderful manner, enabling a workman to follow even a laborious occupation. The ordinary bucket legs are very heavy. These limbs are light, the leg weighing about five pounds, the arm twelve ounces. The common pin-leg gives one pound of support; in the Beaufort leg each successive part of the curved foot as it touches the ground becomes a new base of support, and there is less liability to slip. There is less shock in walking, and almost none of the dragging feeling so much complained of by wearers of the ordinary forms of artificial limbs. I have fitted on many of the Beaufort limbs, and strongly recommend them for general use. Moreover, their small cost brings them within the reach of persons of very limited means. These limbs have been in use on the Continent for many years by all classes of people, and are well known and appreciated. I shall be pleased to show models of these limbs to any surgeon at any time, and to give any further information about them.

I am, Sir, yours, &c.,

Finsbury-circus, July 7th, 1883. JAMES THOMPSON, M.D.

L.S.A. (Manchester) can call himself a registered medical practitioner if he registers his qualification, but he cannot satisfactorily use the other title he mentions.

Mr. J. R. Logan.—The paper will appear at an early date.

Gang Forward.—Registration is not compulsory.

THE BILL AND MEN WITH SINGLE QUALIFICATIONS.

To the Editor of THE LANCET.

SIR,—I shall feel greatly obliged if you will kindly inform me in the Notices to Correspondents in THE LANCET if the new Medical Bill will interfere with those already in general practice with a single qualification. I should think the Bill would not be retrospective; if so, it would be very hard, if not cruel, especially to practitioners of middle age. I feel very anxious about the matter, for I have recently received a circular from a private teacher (Dr. E.). Extract from said circular:—"I think it advisable to draw the attention of all those desirous of obtaining a qualification to the necessity of doing so at as early a date as practicable. And this recommendation would apply not only to those unqualified, but also to those holding a single qualification, who would be compelled to become 'Licentiates of the Medical Council in medicine, surgery, and midwifery.'" Pray tell me what you think of it.

I remain, Sir, your obedient servant,

July 7th, 1883. SINGLY QUALIFIED.

*** Our correspondent is unnecessarily alarmed by a circular which surprises us. Men with one qualification can have it registered, if it is not already registered. The Bill is not retrospective, but will leave them in the same half qualified condition which they are in now.—ED. L.

REMARKABLE CASE OF INJURY TO THE ORBIT.

To the Editor of THE LANCET.

SIR,—A very unusual accident came under my notice in practice some time since, and, as I have never seen or read of a similar case, I thought, perhaps, it might be worthy of record in your pages. The accident happened as follows:—One of the rests for supporting the globe on an ordinary gas bracket entered the orbit of my patient, a young girl, a worker in one of the mills here, ruptured the conjunctival membrane, and, being bent or hooked at the extremity, got caught on one of the muscles at the external surface of the eyeball; this it tore from its attachment to the bone, the insertion into the sclerotic coat remaining intact; the body of the muscle lay on the cheek of the girl. Of course, there was nothing to be done but to cut the muscle away as close to its insertion as possible. I did this, enjoined rest of the eyeball, and ordered cooling lead lotions to the eye.

The muscle torn away must have been either the inferior oblique or the external rectus, as both are attached close together at the external surface of the eye near the cornea. From the structure of the muscle at the extremity I should infer that it was the inferior oblique, as its origin is tendinous and by a single head, an arrangement very different from that obtaining in the case of the outer rectus, which is fleshy and biventral. In my case the torn end of the muscle was fibrous, and so corresponded with the inferior oblique. As the patient did not return nothing could be gathered by me as to which muscle was injured, from the loss of motion and the strabismus which would inevitably result as a consequence of the destruction of the muscle. It must be presumed that no serious inflammatory action ensued either in the orbit or eyeball from the injury. This is rather astonishing, as the force exerted in the rupture of a tendon must be very considerable, and one would have expected that very serious consequences would have resulted in this case to the delicate tissues of the eye. The very serious and unique character of this accident, and the minimum result of injury to the eye, have induced me to record the case in your pages.

I am, Sir, yours faithfully,

Higher Broughton, Manchester, J. W. HAMILL, M.D.

July 9th, 1883.

TAXES ON CARRIAGES.

To the Editor of THE LANCET.

SIR,—As the above subject is one of interest to medical gentlemen of this country, I beg your permission to state a few facts relative to the carriage taxes, and to efforts now being made to induce the Chancellor of the Exchequer to abolish them.

Carriages have been taxed, and (unlike any other manufactured article) taxed annually from their first introduction, principally on the ground that they were luxuries, and that all those who could afford to use them could also afford to pay taxes for doing so. In spite of the many endeavours that have at various times been made by those taxed to dispute this erroneous supposition, and obtain the removal of what is now considered on all sides an unjust, exceptional, and vexatious tax, nothing better than promises and fair words have resulted from their demands.

Had it not been for the strenuous efforts of the Institute of British Carriage Manufacturers, the taxes on carriages would last year have been considerably increased to provide a sum of money to be paid towards reducing local rates for the maintenance of roads, the argument for the proposed increase being that, as carriages wear the roads, their owners should bear the expense of repairing them.

Of course this is as weak an argument as that which is held an excuse for the continuance of the tax at all, for the wear caused by carriages is imperceptible when compared to the havoc wrought to our roads by coal, farm, malt, and carriers' carts and waggons, and by traction-engines with the farming tackle they draw, none of which pay any tax at all. Notwithstanding this, it is now in contemplation to hand over the carriage taxes to the Local Government Board, and it is felt, if once so transferred, all chance of their removal will have ceased.

One great effort is therefore being made throughout the country, and especially by the Institute of British Carriage Manufacturers, to secure the speedy abolition of the tax, and I write to acquaint you of it in the hope that you and your readers will join in the movement, and do your best to further the end in view.—I am, Sir, your obedient servant,

July 10th, 1883. J. F. A. M.

"INFANTILE CONSTIPATION."

To the Editor of THE LANCET.

SIR,—I think if your correspondent, Dr. Seymour, tries the following receipt he will find it efficacious in relieving his little patient's constipation.

Take one quart of bran meal, tie it up in a pudding-bag so tight as to get a firm, solid mass, put it into a pot of water early in the morning, and let it boil till bedtime; then take it out and let it dry. In the morning peel off from the surface and throw away the thin rind of dough, and with a nutmeg-grater grate down the dry hard mass into a powder. Of this from one to three teaspoonfuls may be used by, first, rubbing it into a paste with a little milk, then adding it to about a pint of milk, and, finally, bringing the whole to just the boiling point. It must be given through a nursing-bottle.

I have seldom known the above fail to give relief, and would, therefore, feel obliged if Dr. Seymour would let me know the result of its trial.—I am, Sir, yours faithfully,

Barnsley, July 5th, 1883. MATT. C. HATTON, L.K.Q.C.P.I., &c.

COMMUNICATIONS, LETTERS, &c., have been received from—Mr. Francis Mason, London; Mr. Morris, London; Mr. Page, London; Dr. Weir Mitchell, Philadelphia; Dr. Buzzard, London; Mr. J. S. Cousens; Dr. Hilton Fagge; Mr. Noble Smith, London; Dr. Gowers, London; Mr. May, Moreton Hampstead; Dr. Bateman, London; Mr. Lawrie Gentles, Derby; Messrs. Buck and Spooner, Clapton; Dr. Hayward, Liverpool; Dr. R. de Wouves, Paris; Dr. Park, Glasgow; Mr. John Furley, London; Mr. Isaac Jones, Scranton; Mr. M'Veagh, Coventry; Mr. J. A. Dow; Dr. Milson, London; Mr. Waller, Belfast; Mr. John Craven, Thurso; Mr. Hatton, Barnsley; Mr. J. Clarke, Ilfracombe; Mr. Vitali, London; Mr. J. R. Somers Vine, London; Mr. Jackman, Coggeshall; Dr. J. Pollock, London; Dr. Drewitt, London; Mr. Oded Lowsley, Reading; Mr. Reginald Harrison, Liverpool; Mr. Ashmead, Brierley-hill; Mr. R. Hamilton, London; Dr. J. K. Spender, Bath; Dr. S. T. Smyth, Forest-hill; Mr. Donovan, Cork; Miss K. Prentice; Dr. Lowndes, Egham; Dr. W. A. Duncan; Deputy Surgeon-General Moore; Mr. Jones, Leeds; Mr. Kent, North Tawton; Messrs. Hawks and Co., Birmingham; Miss Barclay, Dunbar; Messrs. Partridge and Cooper; Mr. Marsh, Hindley; Mr. Hyde, Buxton; Dr. Armstrong; Mr. Pearson, Wakefield; Dr. Colford, Baltimore; Mr. Wade, London; Mr. Challis, Brighton; Mr. Cresswell, Dowlais; Mr. Sharp, Walsall; Mr. Browett, Coventry; Mr. Birchall, Liverpool; Dr. Swift, London; Dr. Haywood, Liverpool; Mr. Smith, Bromwich; Mr. Macdougall, Torossy; Mr. Middecke, Lichfield; Mr. Black, London; Mr. Cornish, Manchester; Mr. T. F. Chavasse, Birmingham; Mr. Smith, Hastings; Messrs. Best and Co., Brighton; Mr. Baker, Paris; Messrs. Smith and Oakley, London; Mr. Taylor, Twickenham; Messrs. Russell, Liverpool; Mr. Hulme, Birmingham; Mr. H. C. Taylor; Dr. Sharkey, London; Dr. Blandford, Dublin; Mr. E. G. Sims, London; Dr. Caddy, London; Mr. Smith, Mitcheldean; Mr. De Watteville, London; Dr. Thomson, Luton; Mr. Fuller; Dr. Roche, Kingstown; Mr. Duke, Brighton; Messrs. W. and K. Johnston, Edinburgh; Mr. Melvin, Wemyss; Mr. Cassells, Liverpool; Miss Hartly; Messrs. Ampton and Sons, London; Dr. Wetherby, Portishead; Mr. Cresswell Hewitt; Dr. Taylor, Grantham; Mr. Arschagouni, Constantinople; Mr. Pick, London; Dr. S. S. Dyer, Ringwood; Mr. J. R. Logan, Liverpool; A Police Surgeon; Medicus, London; R. H., Leigh; Locum Tenens; K. H., Newport; L. S. A., Manchester; Singly Qualified; Assistant Surgeon; Country G. P.; A "Lay" Nurse; Gang Forward; Student, Calcutta; J. F. A. M.; A Young Father; Principal, St. Leonards; R. M.; A. F.; Alpha; Mammæ; &c., &c.

LETTERS, *each with enclosure*, are also acknowledged from—Dr. Gray, Herne Bay; Mr. Berridge, Loughborough; Mr. Taylor, Twickenham; Mr. Bigg, London; Mr. Gee, Glasgow; Mr. Edger, Newcastle-on-Tyne; Dr. Taylor, Cardiff; Mr. Maltby, Peckham; Mr. Saunders, London; Mr. Blair, Alnwick; Mr. F. A. White, London; Mr. Clerk, Bath; Mr. Gordon; Mr. Mitchell, Holbeach; Dr. Tylecote; Mr. Jennings, Coleford; Mr. Lees, Oldham; Dr. Kerr, Manchester; Mr. Griffin, Ealing; Mr. Crispe, Clapham; Mr. Mackay, Esho; Messrs. Davies and Co., Aberdand; Mr. Logan, Newcastle-on-Tyne; Mr. Boileau, Paris; Dr. Finlay, Cuba; Mr. Sutherland, Cleckheaton; Mr. Smith, Belfast; Messrs. Burdock and Co., Boston; Mrs. Mertens, London; Mr. Jeffery; Dr. Sutherland, Castletown; Mr. Brockelbank, London; Dr. Batchelor, Cape Colony; Mr. Darke, London; Messrs. Smith and Son, Birmingham; Mr. Molyneux, Wimbledon; Mr. Murphy, Leeds; Mr. Scott, Manchester; Mr. Armstrong, Manchester; Dr. Somerville, Ayre; Mr. Cartnel, Hulme; Mr. Stilliard, Birmingham; Mr. Eschwege, Harrogate; Dr. Gifford, Jamaica; Surgeon, London; N. W.; A. B.; C. Z.; England; M.D., Sidcup; A. B. C., Liverpool; Respice Finem; J. G., Manchester; Forceps, Tadcaster; Medicus, Swinbourne; A. B.; M.D., Oldham; B. X.; Omega; M.D., Liverpool; Medicus, London; C. M., London; M. G., Edinburgh; Delta, Harrogate; R & E.; W. T., Kilburn; R. G. F., Commercial-road; C. R. M., Edinburgh; R. S. T.; W. T. R.; &c., &c.

Scotsman, Berkshire Independent, Aberdeen Herald, Reading Mercury, Brighton Examiner, Bradford Observer, Health, Church of England Temperance Chronicle, &c., have been received.

Medical Diary for the ensuing Week.

Monday, July 16.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

ST. MARK'S HOSPITAL.—Operations, 2 P.M.; on Tuesday, 9 A.M.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.

Tuesday, July 17.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Dr. Garson, "On the Circulatory System of Birds."

Wednesday, July 18.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.—Ophthalmic Operations on Tuesdays and Thursdays, at 1.30 P.M.

ST. MARY'S HOSPITAL.—Operations, 1½ P.M.

ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.

LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.

GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.—Skin Department: 1.45 P.M., and on Saturday at 9.15 A.M.

Thursday, July 19.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—1½ P.M. Surgical Consultations.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.

NORTH-WEST LONDON HOSPITAL.—Operations, 2½ P.M.

THE PARKES MUSEUM OF HYGIENE.—Captain Douglas Galton, "On Recent Improvements in Artificial Lighting and their Bearing on the Purity of Air in Rooms."

Friday, July 20.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.

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ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.

Saturday, July 21.

KING'S COLLEGE HOSPITAL.—Operations, 1 P.M.

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Tables of Contents, with the Index of Advertisements, for each Number can be had on application to the Publisher.

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